PHILOSOPHY

THE JOURNAL OF THE ROYAL INSTITUTE OF PHILOSOPHY

VOL. XXII. No. 83 NOVEMBER 1947

THE SCIENTIFIC WORLD-OUTLOOK [1]

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I

THE scientific world-outlook is something quite different from natural science. The word "science" in its legitimate modern usage represents both a kind of knowledge and the method of obtaining that knowledge. By "science" we may mean an objective body of facts and relationships concerning the physical world and arrived at by the scientific method of observation and reasoning—preferably quantitative observation and mathematical reasoning: thus we may say that the law of constant proportions is a part of the science of chemistry. But we may also use the word science to denote that scientific method which I have just mentioned: thus I may say that *science* is the key to the investigation of nature—or that some inaccurate or biased piece of work is *unscientific*. Science, in either of these senses, does not contain any world-outlook, for it is quite impersonal. Thus science in the first sense consists of certain statements and relationships *e.g.*—that sulphur is yellow, that Jupiter has eight satellites, that all solutions of acids in water conduct electricity; while the scientific method indicates the manner in which from the data of our sense-impressions we can infer statements and conclusions, such as the above, which will be found to represent the phenomena correctly. But a *scientific world-outlook* means something different, because it is a *world*-outlook, the attitude of a man or woman towards the whole of that of which he or she is conscious. Pure science, strictly interpreted, has not gone very far in its study of man and his world; so the scientific world-outlook in so far as it differs from science itself, is the scientist's response to and hypothetical explanation of that which has not yet been

[1] Series: *Contemporary World-Outlooks* (I).

elucidated by science. Science describes the world in terms of number, weight, and measure, and embodies summaries of the descriptions it makes in the form of so-called scientific laws. These afford only a mass of summarized data: the human mind has to integrate these summaries by referring them to some supposed reality, and by such integration, with interpolation to fill the gaps and extrapolation to transcend the limits, it forms the scientific world-picture. Such a world-picture evidently contains an element which is not science in its strictest sense, and a scientific outlook or "world-view" is commonly taken to include even more than a picture—more than integrated data—and to afford grounds for decisions as to conduct. A scientific *world-outlook*, then, implies some connection between science and the making of judgments, of decisions, concerning what is to be accepted and what rejected; and it is scarcely necessary to labour the point that the actual decision, choice or interpretation implied in an "outlook" cannot be a part of science itself, and does not merit the confidence we place in the conclusions of science.

The data and conclusions of science are distinguished from other data and conclusions by two chief features, community and certainty.

The data that science records and summarizes are common to all men, not only through their free publication and diffusion, but through their very nature. Statements based on affective and conative experiences cannot necessarily be understood by those who have not had such experiences: works on mystical subjects, for instance, may have intense meaning for one man and seem complete rubbish to others: but a scientific work is wholly intelligible to anyone who takes the trouble to learn the terms: there is nothing in it of an esoteric character even though there be only three people that can follow its reasoning. It may be obscure through subtlety or complexity, but it is wholly accessible to any man with a good enough head. It is without party, race or creed; the Russian, the Indian, and the Englishman are on the same ground and talking the same language as long as they stick to pure science—though not, perhaps, when they form their scientific outlook.

Even more important than the community of science is its certainty. The scientific man's first business is to record observations as truly and as accurately as possible. He knows that nothing he can record (except enumerations, *e.g.* that A has ten fingers) is perfectly accurate, but he knows how much error to expect in each observation and does not take his results to be truer than they are. The public does not always appreciate this factor of experimental error, and is apt to think that our data and conclusions about expanding universes are known with the same accuracy as those

that concern expanding steam-pipes. But, be this as it may, it is fair to say that the data that are admitted into science are scrutinized with care.

To ensure accuracy, however, there is required not only technique of observation, but also freedom from bias, which, though it is unlikely to lead to deliberate falsification of scientific observations, may operate by leading to the unconscious or semi-conscious ignoring of observations unfavourable to a theory, or the selecting of those that are favourable. This bias is difficult to eliminate: few men, even in science, are without their hobby-horses, and complete self-knowledge and honesty is so high a quality that we need not be surprised to find it rare. But scientific papers are published, and are open to free criticism; the pet theory of one man is the chosen target of another. There may be cases where scientific opinion as a whole has a prejudice in favour of or against certain views, in which case it may be difficult for opponents of these to find a hearing, but generally there is an anxious striving to supersede or improve upon the old.

Thus as far as the facts of science are concerned, we are justified in having a reasonable confidence in their correctness. As far as the conclusions of science are concerned (where we cannot check them ourselves) we may have some confidence in their being the most probable deductions *from the data employed*. But we must remember the words of the witness's oath—"truth, the whole truth, and nothing but the truth." He would be a bold man who would claim that the scientific account of some complex process, e.g. the motion of Mars, or the functions of the kidneys, was nothing but the truth and nowhere in error; the best that could be claimed would be that the account corresponded closely with the observations, but never that it had said the last word or would not be superseded by wider generalizations. But this after all is true of all knowledge of individual things. We may with more reason ask what claim the conclusions of science have to be *the whole truth*—by which, of course, I mean the whole of the truth that could be known by man about the subject with which they are concerned. The conclusions of science are inductions from scientific data. I am not going to launch myself on the deep water of a discussion of the validity of induction, further than to say that I am convinced that no conclusion arrived at by induction can be more than probable—though in some cases so probable as to differ infinitesimally from certainty. But I would dispute the claim of scientific conclusions to be the whole truth, rather on the ground that they are not always drawn from a representative selection of the available data. In the case of the motions of Mars we need not complain of this; in considering the physiology of the kidney we may perhaps question the attempt

to express the phenomena of life in terms of physics and chemistry (*i.e.* of the non-living), as omitting the principal feature of the subject—namely that it is living matter. But if the subject discussed were the human brain or even some aspect of sociology, then an explanation in terms of what science can observe—external changes—a motion of matter—might be a very partial one.

We may think then that the conclusions of science are likely to be accurate and unbiased, but to be true accounts only of those aspects of things which are the subject of scientific observation.

Now what is the characteristic outlook of scientific men on the nature of things? Necessarily the scientific man has the greatest confidence in scientific data and is prone to characterize what is known from reasoning about such data as "fact," and to regard all other conclusions as "speculation" or "conjecture." He will construct his world-outlook according to the positivist attitude of science. Taking his stand upon the known he will proceed to nibble away the unknown, never extending his view beyond the immediate problem, beyond that which he can infer by the reasonings of science from data which have been already ascertained in that way. Thus the scientist's world has no conscious metaphysics; yet everyone (except perhaps the mathematician) *must* have a metaphysic, must assume that some things are real and some things are seeming, that some argumentations are valid and some fallacious. The scientist does not attempt any *a priori* decisions in such matters. Indeed he concerns himself very little with them, because his criterion of success is simply that *his science should work.* If his habit were to build up, as Descartes hoped to build up, long chains of pure reasoning culminating in otherwise unsupported conclusions, it would be very important to know if his assumptions and reasonings were sound. But, actually, scientists do not believe in reason. Every stage in an investigation is checked by experiment, that is, by a trial designed to discover whether the conclusions he has so far drawn by reasoning about the class of phenomena that he is studying are, in fact, true (*i.e.* predict what will occur); and mere reasoning supported by no experimental check carries very little weight. This, I think, is why the scientist is in general so little interested in philosophy. All he wants is to predict phenomena correctly. He may be treating matter as a hard, massy, and impenetrable reality one day and as a tissue of mathematical equations the next. He may make assumptions about it which seem contradictory or impossible—all is one to him as long as they lead to laws which afford him correct knowledge of what is going to happen to a system under certain conditions. The method works (*i.e.* corresponds to observed facts), because every stage of the reasoning is certified by the facts, which is all that he cares for. Most characteristic was the

remark of Sir J. J. Thomson: "Well, of course, I have always thought that the chief value of any theory was as a basis for further experiments."[1] This verification of reasoning is the backbone of scientific certainty, and where it is impossible the man of science is very much at sea.

The scientist sees the whole world as the product of the interaction of a small number of kinds of entities, which are either particles or quanta of electro-magnetic waves, under the influence of gravitational, electrical, and magnetic forces. He has gone some of the way towards explaining the behaviour of matter in terms of these particles and their combinations—atoms, ions, molecules, and assemblages of molecules. At the root of all this are any number of unsolved problems—how are gravitational, electrical, and magnetic forces related? How is a wave related to a particle? etc., etc., but these fundamentals he justifiably omits. As Newton says: "To derive two or three general principles of motion from phenomena and afterwards to tell us how the properties and actions of all corporeal things follow from those manifest principles, would be a very great step in philosophy even though those principles were not discovered."

Thus all scientific explanations lead in the end to a question, and there will be always another question to ask. This the scientist can and should frankly accept. But the average scientist is not always so clearly aware of what he does not know and is apt to think of his world-view as more complete than it really is. But given the assumptions of these fundamentals, and waiving the question of the nature of his ultimate entities, his analysis of non-living matter in terms of them is remarkably sound and fruitful, and it is progressing at a great rate. This analysis is extremely *useful* and it gives us a far clearer picture of the physical world than can any other method, but it can never be a total explanation. We can analyse our brick until we come to the vast ultimate energy that lurks in the heart of it. As we pass from stage to stage—mass to crystal, crystal to molecule, molecule to atom, atom to electron, proton and neutron, so one loses the brick one knows and everything one knows about it, till one reaches a statement which employs nothing imaginable, but is just a tangle of equations. But these equations are not mere subtleties of the mathematical mind—for the atomic bomb, worked out by these means, confirmed their validity with a voice of thunder on the day when it was first tried in New Mexico. These equations are not mere subtleties about matter, they are *a* truth about it, but not *the* truth about it. Science then tells us important things that we could not otherwise know; and we may ask ourself what is the characteristic of the scientific account

[1] *Sir J. J. Thomson, O.M.*, Lord Rayleigh. Cambridge 1942. p. 141.

of the world. Science is almost always giving us a dynamic picture of the activity of a thing. Even a tree is always seen in action, pumping up water, making itself out of the air and water and light, crowding out its neighbours, reaching for the sun; nay, even a stone is viewed in its action, in the way that it became stone, in the interplay of its atoms and molecules, in the potential activity of its chemical properties. Here, I think, is the essential quality that science has made us see in the world. By science we see the world as perpetual activity; not a single tiny particle, but is in constant action. We see the whole of this complexity of motion maintained by the high-grade heat-energy of the stars running down to low-grade heat-energy—and irreversibly. It is a picture strangely resembling in principle (though utterly different in detail) the neo-Platonic universe, with God, the source of all motion, transmitting through the heavenly bodies a stream of influence activating everything on earth and finally becoming extinguished in matter; to-day we see the same activating stream of energy pass from the heavenly bodies to us and thereafter become irrecoverably lost.

But the wonder of this picture must not blind us to its incompleteness. The ultimate entities remain unexplained, perhaps inexplicable, and there are other *lacunæ*. Thus the scientist's picture of non-living matter is admirable, but when our survey of his world-view passes from the non-living to the living there is a gap. There is at present no convincing theory to explain the difference between the living and non-living—to show how a kind of matter can reproduce and maintain itself under changing conditions. Metaphysicians may argue whether life *could* be elicited from the non-living. That is the sort of question that science never asks. Instead of disputing concerning the *a priori* possibility of producing the living from the non-living, science initiates the research which shall lead to the trial of the crucial experiment. It is trying to analyse the process of living into its simplest elements and it will try to imitate them. The chemical technique of complex molecules, though rapidly advancing, is still so inadequate that science is not yet in a position to try any crucial experiment, but organic chemistry is creeping towards it by many paths. It has not yet succeeded in this task, and it has no assurance of ultimate success; but the research is what Bacon called an "experiment of light," which, whether it succeeds or not, enlightens us.

Here, where knowledge is lacking, the gap is temporarily filled by this "scientific outlook." Tacitly, the greater number of scientists will not assume, even as hypothesis, that there is in the world any entity that could not be explained in terms of the particles and forces recognized or to be recognized in physics and chemistry. Science has given us no reason for denying the existence of some-

thing we might call a "vital principle," but science will not adopt it even as a hypothesis until all other explanations fail. This attitude, which is no more than methodological, is commonly taken as a denial of the existence of any such principle; and indeed such a denial is a part of the normal "scientific outlook," though no part of science, strictly interpreted.

In passing from the study of plants and of other animals to that of man, there is a similar discontinuity. We are each conscious of a world of sensations, images, concepts, utterly sundered from anything which we have been able to study in the world of the non-living and of the lower-organisms. In what form is this mental world depicted in the "scientific outlook?" There is nothing absurd, of course, in an attempt to study the human mind and its activities by scientific methods. Anything which can be described in such a way that its regularities can be discovered and recorded is a fit subject for the scientific method, and the science of psychology takes as its material some part at least of these consciously-experienced mental phenomena. The results have not been negligible, and we can formulate some fairly accurate laws about the lower aspects of mind, (*e.g.* sensation) and some useful generalities about the modes of response of human beings to certain conditions of environment. But science is concerned with the relations between classes, and the mental content of human beings is so very different that it is scarcely possible to classify it except in large and ill-defined categories; thus it would seem that, for this reason alone, the scientific treatment of human mental operations could not advance very far.

Furthermore science can only deal with determined sequences of cause and effect. Some schools of thought have made the assumption that physical determinism applies in the realm of mind, in order that they may bring that realm within their scientific world-picture. But this is a distortion of that experience on which all science is ultimately based. We have direct experience of freedom of will, and the onus of showing this to be illusory is on those who advance the theory of physical determinism. It should seem then that the operations of the human mind should be excluded, in great measure, from the ambit of science. Here the "scientific outlook" finds its difficulty. Is the scientist to continue in his positivism and maintain that until other entities than those of physics and chemistry are demonstrated, he will abide in the theory that the operations of the human mind are caused by physical and chemical changes determined in the same manner and to the same extent as the other phenomena that those sciences have studied? If so, he is assuming two hypotheses that are very unlikely, the illusory character of freewill, and the production of thought by

a complex machine. But if he does not, he must either abandon a wholly scientific outlook on the world, or greatly enlarge his conception of science. Thus the positivistic scientific method leads to a choice between materialism on the one hand and a belief in a principle of mind, additional to the principles of physics and chemistry.

Both of these are scientific procedures. The materialist assumes as a hypothesis that the whole of his experience is explicable in terms of particles, waves, and forces: the non-materialist, likewise that a further entity must be assumed, for the study of which there is at present no scientific technique.

Now scientists are men and citizens who have to make judgments, choices, decisions, and take action accordingly. In these decisions and actions they are generally concerned with human relationships, private, national, or international. These are not at all easily handled by the scientific method. We hear for instance of the "scientific management" of businesses and other institutions. Is there really a science of management, which is largely a matter of social relationships? "Scientific management" is, I take it, management in which conduct is based on the regularities to be found in accurately ascertained and statistically presented material concerning that business. Such management is obviously the better for basing itself on the most accurate information obtainable and on the rules of interdependence that have hitherto been found to apply to the matters of its concern. But if the analogy with natural science is pushed too far and the human units are treated as if they were *determined* by these rules the method will fail. The usefulness of the scientific method in such matters is, therefore, limited in practice by the proportion of the subject matter that can be handled by science to the portion that cannot. So we may say, generally, that the statistical methods of the sociologist have their value but that the human will is influenced by so many factors that the establishment of laws of human behaviour is at best a doubtful and approximate task. Moreover experimental verification of sociological conclusions is very difficult or in most cases impossible, for conditions cannot be varied at will for purposes of experiment. Thus the scientist finds pure science failing him when he studies the problems of human relationships and he has to fall back on his "scientific outlook" as a guide. Too often, the outlook of the scientist on human problems differs from that of the common man merely by ignoring spiritual and ethical values which are, in fact, of prime importance in determining human conduct. The ignoring or even opposing of these factors in human conduct does in fact characterize the outlook of the materialistic scientist.

The materialistic scientist who bases his judgments and choices upon a materialistic world-view will be led thereby to certain

ethical and political attitudes which may differ very widely from those of the non-materialist. Before we examine this variety of world-outlook we may ask ourselves whether it is in any sense the scientific outlook. I do not think that materialism, as a pronouncement about the world, is any part of science, for it is obvious that science cannot pronounce concerning that part of experience which it has not studied. It arises, no doubt, from the positivistic scientific method, from the proceeding always from the known to the unknown, yet it departs from that method by dogmatizing about matters concerning which it has no scientific data; and it is in fact impossible to make good the claim that materialism is a logical consequence of scientific observation and reasoning.

But, we may ask, is materialism, if not *de jure*, at least *de facto*, a part of the scientific outlook? Are the majority of scientists materialists? To this question it is hard to give an answer; no doubt a questionnaire addressed to men of science would be much better evidence than my guesses. I should, however, be inclined to say that the majority of scientists, while not being convinced or dogmatic materialists, adopt materialism, at least as a working hypothesis. They would, I think, regard it as improbable that there is anything that could be called a soul or spirit, and would regard our experience of such as a mere abstraction, an *ens rationis*, a thing of the mind, incapable of existence apart from a material body. Very few of them, I venture to think, could give good reason for their opinion. To people occupied with things of the mind it seems as if all matter were an aspect of mind; to those continually occupied with matter, as are scientists, it seems that everything is an aspect of matter. I think then that, *de facto*, materialism is to-day a part of the scientific outlook. It is often said that, at the present time, science is becoming less materialistic—that the hard, massy particles of Lucretius, Newton, and the Victorians, have become something more like the centres of force postulated by Boscovitch. It is true. Matter as solid inert lumps has been replaced by matter as intense activity and a storehouse of stupendous quantities of energy. Matter is no longer the element of Earth but the element of Fire. We may feel that this newly discovered activity is akin to the activity of mind, but this feeling is, I think, an error. Matter may perhaps seem less unlike mind to-day than it seemed fifty years ago; but a field of force, a portion of curved space or whatever we now regard as the essence of matter seems to me as incapable of producing thought as was the massive impenetrable lump of the early atomists. I do not think that the development of physics is at all likely to relieve our difficulties—to establish or demolish materialism—except in so far as it has destroyed the illusion that we know what matter is.

If then materialism is characteristic of the outlook of scientists to-day, to what results is it leading, and likely to lead? The scientist is becoming an important person: he does not remain in the laboratory and classroom, but is beginning to be found in councils of state, guiding the nations.

The scientist can try to aid our governments in two ways, by telling them how to do what they want to do, and by telling them what they want to do. The first is the legitimate function of applied science, to enable man to put his desires into action; but in doing this the scientist finds that he has provided things, some of which he, as man himself, feels to be good, others of which he feels to be bad. Here are two words, *good* and *bad*, to which the materialist may find it hard to apply a meaning. What does the scientific materialist consider to be good? He obviously can admit no absolute values; yet if he admits of any choice of conduct or any decisions he must choose those which conduce to some end. It is not at all clear what end the scientific materialist will choose; but, roughly speaking, it is likely to be that which he, a materialist, wishes for himself. There is at the present time a very influential body of materialistic persons—scientists, technicians, and others—who feel that science or some rational process based on observations should be able to guide them in a choice of a system of conduct to be adopted not only by themselves, but by everyone else. Any system of conduct that is not mere convention is designed to bring about some end and we are led to ask what end the materialistic scientist can wish to bring about. It should be clear that science, being a mere classification and ordering of abstractions from sense-impressions, cannot possibly say that anything *should* or *ought* to be done: in selecting a desirable end the materialist must be reduced to the guidance of his personal preferences. There is, of course, no reason why he should desire anything "good" for humanity, yet in general he does so; partly on account of an early training based on the Christian ethic, but chiefly, I think, because the scientific heroes and revolutionaries of the past, whom he takes as his models, have done so. If, then, he desires that humanity should enjoy good things, he can only wish for man what he himself regards as good; he wishes that men should be as he wishes to be. He therefore desires for them health, education, a scientific outlook such as his own, increased physical comfort and security, but he is quite unable to name any higher good that could be sought by those already in possession of these not very lofty or satisfying goods, which moreover are means and not ends at all. The difficulty does not in fact strike him just because he *is* a scientist and, as such, concentrates on the immediate problem. "Plenty of people lack these goods: very well," he says, "let us go ahead and find means to provide them." How will he provide them?

First, he must carry out research into the *best* methods of production —but here's that word best again. What are the best methods? For the materialistic scientist they are the methods of highest efficiency, those that produce the greatest quantity of goods of a certain type with the least expenditure of power and labour. The human factor does not enter into this criterion. If work along the conveyor-belt gives the "best" results, then men and women should be organized and persuaded to work in this fashion. The cottage industry of low efficiency carried out in the warmth of the family association is abhorrent to him. His ideal is really the machine: thus the remedy for human ills seems to him to be organization—the forming of the unit of humanity into a machine, *i.e.* a system functioning according to the laws of its designers and uninfluenced by the wills of its unitary parts save in so far as they are prepared to will the community's will and think the community's thoughts. Such, I think, in outline, is the plan of the materialistic scientist for humanity. He is not really interested in the individuals, but in the structure they form. It scarcely occurs to him that man, once provided for, will feel a fearful void of the spirit, worse than any physical hunger, a hunger which nothing that science can provide is likely to satisfy.

The world-outlook of the materialistic scientist scarcely takes any account of ethics. What *ought* people to do? The scientist cannot get an "ought" from science, but he can find one in his own mind—the ancient one "they ought to do what I want them to do"—in other words, fall in with my plan to make an efficient human machine. Accordingly we hear a good deal from such men about the duty of co-operation with the state or community—all very familiar in the Europe of recent years.

But the more philosophic and reflective scientists see through this and require some *rational* foundation for an ethical system. Attempts to invent a system of scientific ethics have been made by evolutionists from Herbert Spencer to Mr. Julian Huxley. Man is to aid the evolution of himself and his institutions by guiding them in a direction indicated by that which they have hitherto taken. Man has progressed and should continue so to progress. The difficulty of this view lies in the discovery of any ethical principles underlying this progress. In 1900 we seemed to be progressing toward universal brotherhood, equality of opportunity and regard for truth—all a long way off, but much nearer than a century before. To-day after a quarter of a century unequalled for bloody cruelty, oppression, and falsehood, we are forced to doubt the existence of any necessary law of ethical progress. Further, we are beginning to realize that there is no reason whatever why the materialistic scientist should desire the good of humanity, and I suspect that the next quarter-

century will show the scientists of the less sentimental races to be outgrowing this illusory benevolence.

But I also hope that the next quarter-century will see a different development. I hope that the scientists will see that it is not unscientific to refrain from attempting to apply the scientific method to phenomena which are clearly not susceptible of scientific treatment, namely the higher levels of human mental activity, the regions of those far-reaching integrations that are found in our aesthetic and ethical judgments. I hope that they will realize—possibly through that metaphysical reasoning to which scientists are so averse or even, perhaps, through experiments (such as those of J. B. Rhine) which will perhaps be further developed—that there are operations of mind that are so completely severed from those of matter as studied by science as to require an absolutely new technique for their study and new principles for their explanation. Then I think we may find scientists pursuing the truth about the external material world by the methods that have proved so successful, and applying it to purposes decided upon by the methods that have likewise proved successful, namely those of religion. When I commend this solution to audiences of scientists I am met by two objections. Someone commonly says that the ideas of religion—e.g. the idea of God—are just syntheses of the various irrational values that may have been established in my brain as a consequence of my glandular make-up, early complexes of associations and so forth. Others ask me which of the many religions is going to determine our ethics. Everyone can, of course, make his own personal reply to such objections, but I would say "Let the same attention be given to religion as is being given to science, the same effort to arrive at religious truth by any religious method, as is given to arriving at scientific truth by the scientific method, and these questions will solve themselves."

The Christian ethic remains in the opinion of most people, including the majority who never enter a church, the perfect way of life, and nowhere is the description "a true Christian" anything but the highest praise. But this way of life, this ideal, has become separated from the common outlook, which is to-day a debased form of the scientific. Those who ask the question "Why should I adopt this way of life? What guarantees its validity?" find an answer which does not link up at all with their way of thinking. The language and symbology of religion seems dead to them—"It was all so long ago, we know so much more than they did." The language and concepts of theology are still largely scholastic and thereby very foreign to modern thinking: the consequence is that Christianity is no longer regarded as rational, but as emotional—something you practice because you enjoy it and don't practice if you don't . . .

To my mind, the only hope for the world is the incorporation of the religious, philosophical, and scientific outlooks in a single comprehensive view, and I would say emphatically that this incorporation has not been accomplished and that its accomplishment is the most immediate and urgent of tasks for those who wish men well.

Let me recall what happened in the thirteenth century. A new source of knowledge and a new mode of thinking was imported into the Western world by the translation of the texts of the Greek writers of antiquity, notably Aristotle. This enormously enriched science and philosophy: the Church after some hesitation embraced this new learning. The philosophy of Aristotle, when applied to the Christian revelation, suggested a great number of new questions about religion and modes of answering them: the result was the great system of Catholic theology that we have to-day. Now we are confronted with a much more difficult but not an impossible task. If the scientist will enlarge his world beyond that of the materialist, and adapt his methods of thinking constructively, not destructively, to the ethical and religious field, he will find new questions to ask and new answers, and the consequence will be, not the abolition of ethics as is threatened by materialism, but the restatement of perennial truths in terms which will be clearly understood and warmly accepted by the modern world.

THE MARXIST OUTLOOK[1]

Professor H. B. ACTON.

By a "world-outlook" I mean a systematic account of the nature of the world which claims, by showing the place of man in the scheme of things, to indicate the point and purpose of his life. The theory of the world is often called a metaphysical theory and the theory of conduct an ethical or moral theory. In my opinion the clarification and criticism of world-outlooks is a fundamental part of philosophy. Indeed, I hardly think that philosophy would have existed as something distinct from science or poetry but for the tendency to attempt some explanation of the world as the scene of human endeavour. When Kant referred to "the inevitable problems of pure reason" about "God, freedom, and immortality," he was referring in a summary way to the fundamental philosophical task of analysing and criticizing world-outlooks, a task that may be undertaken even by those philosophers who do not believe that any world-outlook is or could be adequate. It is clear, of course, that the civilized religions, since they seek to show how human conduct fits in with some Divine Plan or Cosmic Conflict, have world-outlooks. It is, however, misleading to look upon religions and world-outlooks as the same thing, as some people do. For in ordinary usage religion involves belief in supernatural beings and conduct regulated in the light of this belief, but according to some world-outlooks (e.g. that of Spinoza) there are no supernatural beings, while according to others (e.g. Epicureanism) beings may exist deserving that description but human conduct need take no account of them.

Marxism is such a non-religious world-outlook. Its theory of the world is known as Dialectical Materialism and its theory of human purpose as Scientific Socialism. It is the official world-outlook of the Soviet Union where it is taught in schools and universities and arouses in the students, we may suppose, at least as much interest as the Scriptures and Catechism do in England. Although some of the most important works in the Marxist literature were written in this country, not many academic philosophers here have taken much account of them. During the last twenty years, for instance, translations of philosophical works by Marx, Engels, and Lenin have been published here, but few, if any, of them have been reviewed in the philosophical periodicals. Nor, so far as I am aware,

[1] Series: *Contemporary World-Outlooks* (II).

have the philosophical journals discussed works by English Marxists such as Mr. T. A. Jackson's *Dialectics* or Professor Haldane's *Marxist Philosophy and the Sciences*. Very few contemporary Russian works of Marxist philosophy have been translated into English, and the surveys of Russian philosophy which appeared in *Philosophy* from time to time in the years before the war, were necessarily too brief to convey a clear idea of Russian developments in Marxist thought. Thus, apart from Dr. Popper's excellent discussion of the sociological and ethical assumptions of Marxism in his *Open Society and its Enemies* and one or two articles by Mr. E. F. Carritt and Professor Macmurray and some brief references in Mr. Berlin's *Karl Marx*, the philosophical content of Marxism has been almost entirely neglected in this country.[1] On the other hand, economists and political theorists have written a good deal about the economic teachings of Marxism so that there is little point in providing yet another summary of these. In what follows I shall therefore particularly stress the doctrine of Dialectical Materialism which provides the setting for Scientific Socialism and shall examine the latter in the light of its moral theory. In the space at my disposal I shall only be able to indicate what I take to be salient, and much that is important will necessarily be omitted.

Dialectical Materialism

It is well known that Marxists claim to be materialists and in what follows I shall first attempt to show what they mean by so describing themselves. It should be noticed at the outset, however, that the word materialism is frequently used in a moral sense to stigmatize those persons who selfishly aim at material goods and luxuries. I need hardly say that it is not in this sense that Marxists regard themselves as materialists although, as we shall see later, they do apply their materialist theory to the moral sphere.

The first thing that Marxists mean when they call themselves materialists is that they believe the material world exists independently of anyone's perception of it. That is, they hold the view of perception which philosophers to-day call Realism. This, however, does not distinguish them from most of the world's inhabitants, since it is only in philosophical circles that realism is ever doubted. The possibility of doubting the independent existence of the material world arises when we reflect on illusions of sense such as perspectival distortions, mirror images and the effects of disease or drugs, and

[1] Since writing this I have seen Mr. G. A. Paul's *Lenin's Theory of Perception. Analysis*. Vol. V. No. 5. August, 1938; and there has appeared in *Polemic* (No. 6, November-December, 1946), Professor Sidney Hook's critical article entitled "The Laws of Dialectic."

conclude that they show that we do not immediately perceive physical objects themselves but rather their effects on us, since a perceived spheroid cannot be identical with a material sphere, nor a face perceived behind the mirror be identical with the one in front of it, nor a dog perceived as yellow be identical with a living dog known to be white. Some philosophers have thence been led to argue that since our immediate knowledge is of something in ourselves rather than of material objects outside us, any knowledge we may have of things outside us, must be based on our immediate knowledge of what is within us. When, however, the attempt is made to show how, from knowledge of our own experiences we can reach to knowledge of material things, these philosophers have found difficulties. In the first place they say that while we can be quite sure we are seeing a particular coloured shape or hearing a particular sound, we cannot be quite so sure that the material cause exists outside us since we sometimes suffer from hallucinations. Might not the whole of our perceptions, indeed, be a monstrous hallucination? How can we prove that they are not? In the second place, puzzles arise as to the nature of the material things that cause our perceptions. Before we begin thinking about what happens in perception we believe that colours, shapes, and sounds exist in the material world just as we perceive them. But philosophical arguments are brought forward to show that whatever physical colours or sounds may be, and whatever may be the boundaries of physical things, they must be very unlike the sensations of them we have within us. Philosophical enquiry leads us to modify very considerably the commonsense notion of the matter that we have regarded as existing independently of us. In the third place there are those who argue that the task of coming to a knowledge of something beyond our perceptions and causing them is bound to be hopeless since the very notion of something inexperienced which causes our perceptions is absurd. According to these philosophers, material objects must be features of our experiences, not things-in-themselves that cause them. On this view, to say that a cherry exists is to say that such and such sensations are being or may be had. It is, in J. S. Mill's words "a permanent possibility of sensation." This view is known as Phenomenalism.

The most sustained discussion of these matters from a Marxist standpoint that I know of is in Lenin's *Materialism and Empirio-Criticism*[1] which he completed in London in 1908 and published in Moscow in 1909. By "Empirio-Criticism" Lenin means the phenomenalist theories of perception and knowledge developed by Ernst

[1] Translated into English by D. Kvitko as Vol. XIII of the *Collected Works of V. I. Lenin*, London, 1927.

Mach[1] and Richard Avenarius and kindred thinkers. Some of Lenin's fellow members of the Social Democratic Party had been attracted by these views which they thought consistent with the Marxist philosophy. Lenin thought they were not and wrote his book to demonstrate this.

What positive arguments then does he put forward in favour of a realist theory of perception? His most important argument, I think, is that no amount of philosophical argument can weigh against the philosopher's own practice when he eats his meals and talks to his friends. The phenomenalist or idealist conducts himself in much the same way as the naïve realist does and therefore, according to Lenin, his deeds belie what his arguments claim to show. On page 17, Lenin says that Diderot came close to the view of contemporary materialism "that arguments and syllogisms alone would not suffice to refute materialism, and that it is not a question of theoretical argument," and on page 113, after quoting with approval Plekhanov's remark that belief in the existence of the external world is an inevitable *salto vitale* (vital leap) in philosophy, he writes: "From the standpoint of life, practice ought to be the first and fundamental criterion of the theory of knowledge. It inevitably leads to materialism, brushing aside the infinite inventions of professorial scholasticism." It may be remembered that Descartes, in endeavouring to prove the existence of the material world from his own existence and experiences laid some weight upon the "teachings of nature," and that since his day various philosophers have regarded the independent existence of a material world and of other selves as unassailable Principles of Common Sense. Lenin, I am sure, would not have quarrelled with this language, but I think he would have insisted that it is not merely a question of listening to nature's promptings but also of acting on them. We have an irresistible tendency to believe in the existence of a material world but it is because we have come successfully to act on it that we are justified in taking it as the basis of our theorising. Thus, in perception we leap in thought from our sensations to a material world that causes them and when we come to act we constantly find material things and people who respond. We therefore divide our theory from our practice if we adopt an idealist or phenomenalist theory of perception, and this is either foolish or dishonest.

The phenomenalist, of course, will reply that Lenin, in appealing from theory to practice, assumes without argument that practice can only be understood in realist terms. In fact, however, the phenomenalist would continue, we mean by practice the having of certain organic sensations (say, feelings of effort), in association

[1] His best known work on perception is translated into English as *The Analysis of Sensations*, Open Court Publishing Company, Chicago. 1914.

with certain non-organic sensations (say, the set of tactual and visual sensations we call a paint brush), followed by changes in certain other non-organic sensations (say, changes in the colour of the bookcase from brown to cream). It is an elaborate business to describe practice in such terms but, the phenomenalist will say, there is in principle no difficulty in accounting for practice within a phenomenalist theory. There is no divorce between his theory and his practice. What he is doing is giving a different account of what material things are and what practice is from that given by the realist. He is involved with material things as much as the realist is, but while the realist regards them as things-in-themselves that cause our sensations the phenomenalist regards them as groups of sensations and gives a different account of what changing them is. And the phenomenalist claims that his account is a better one than the realist's, since the realist brings in things-in-themselves which are never directly experienced at all, while the phenomenalist confines himself to entities which are directly experienced and which therefore cannot be subject to any doubt at all, viz. sensations.

Lenin does not, in any writings of his that I have seen, directly answer this phenomenalist account of what practice is. He does, however, bring against phenomenalism some arguments which, in my opinion, show some of its weaknesses. On pages 24–25 of *Materialism and Empirio-Criticism*, in discussing Mach's account of phenomenalism, he points out that Mach, in giving his account of material objects in terms of sensations, is forced to refer to the brain and organism of the percipient. But to deny that a material world exists beyond the sensations and experience and yet to admit that the sensations are in part determined by the conditions of an organism is, Lenin holds, quite inconsistent. He admits, however, that the phenomenalist will say that the brain itself is a complex of sensations, and if not a complex of actual sensations, then of possible ones which, as Mach says, would appear to someone observing my brain "with all the necessary physical and chemical appliances." At this point Lenin abandons pursuit of the argument. The principle behind it, however, seems to me to be a sound one, viz. that if we try to specify the conditions on which the sensations that are supposed to make up physical objects exist, we are inevitably drawn into admitting the existence of physical objects not themselves sensations, and thus into admitting that sensations depend on material things. Stout puts the point forcibly in his article entitled *Phenomenalism*[1] when he says that the conditions of actual or possible sensations "always involve physical factors which have not themselves been analysed into sensations actual or possible."

[1] *Proceedings of the Aristotelian Society*. New Series. Vol. XXXIX. 1938–39, p. 16.

Lenin also argues against phenomenalism that it is inconsistent with the scientifically established view that the physical world existed before there were conscious beings to have sensations of it. If the material world consists of sensations and sensations depend on living organisms then the material world could not have existed before there were living organisms, and the scientific account of the development of the world is a dream. (*Materialism and Empirio-Criticism*, pp. 52–62). Avenarius[2] had tried to avoid this difficulty by introducing the notion of an imaginary spectator, but Lenin, quite rightly, it seems to me, will not accept this way out. If from the beginning of things there has been a God who constantly observes everything, the difficulty, of course, disappears. But Mach and Avenarius are required by their own phenomenalist theories to regard the notion of God as just as non-empirical and therefore inadmissible as that of material substance.

It seems to me, therefore, that Lenin was right in rejecting phenomenalism. What form of realism, however, does he in consequence accept? I am afraid that we cannot find in his or in the writings of Marx and Engels anything approaching a satisfactory realist account of perception. Engels writes (*Ludwig Feuerbach*, pp. 40–41): "The influences of the external world upon man express themselves in his brain, are reflected therein as feelings, thoughts, instincts, volitions . . ." According to Lenin our perceptions are "images of the outer world," and he writes of "a reality which is copied, photographed, and reflected by our sensations . . ." (*Materialism and Empirio-Criticism*, p. 78, p. 102). He also (op. cit. p. 197) rejects a suggestion of Helmholtz that sensations are not copies but symbols (Helmholtz really means *natural signs*) of material things. "If sensations are not images of things but only signs or symbols, which have 'no resemblance' to them, then the materialist starting point of Helmholtz is completely undermined; the existence of external objects becomes doubtful, for signs or symbols quite possibly indicate imaginary objects, and everybody is familiar with instances of such signs or symbols." There is no time for us to examine these statements in detail and so I can only remark dogmatically (a) that the Marxists clearly allow themselves to slide from the contention (which I agree with Dr. Samuel Johnson is justified) that practice shows all accounts of perception opposed to realism to be fantasies rather than genuine theories, to the very different contention that the theory of perception is virtually completed when we have shown that perception involves a "vital leap" and (b) that realism is consistent with many other views of the relation of sensations to physical objects than that they copy

[1] Lenin discusses with approval (pp. 48–50, p. 67) Professor Kemp Smith's article, "Avenarius's Philosophy of Pure Experience," *Mind*, Vol. XV. 1906.

them. What is involved in the notion of materiality and how sensations are related to material things are questions to which Marxists, as far as I am aware, have given little attention. No doubt they regard them as practically unimportant.

The second thing that Marxists mean when they call themselves materialists is that the existence of matter preceded that of mind and that mind arose out of matter. Engels describes this in his *Ludwig Feuerbach* as the theory of "nature as primary." In *Materialism and Empirio-Criticism* (p. 26), Lenin puts the view in the following way: "Materialism in full agreement with natural science, takes matter as the *prius*, regarding consciousness, reason, and sensation as derivative, because in a well expressed form it is connected only with the higher forms of matter (organic matter)." Those who hold that mind is prior to matter assume according to Engels, "world creation in some form or other," and therefore those who maintain the primacy of matter deny the existence of a Creator. Thus Marxist materialism is atheistic.

Marxists philosophers, however, do not embark on detailed criticism of theistic arguments. Engels in *Ludwig Feuerbach*, gives a brief account[1] of the development of the notion of "the one exclusive god of the monotheistic religions" from the dream apparitions of primitive man, much as Tylor and Spencer had done. In this way atheism is established by showing how the notion of God can be explained in natural terms as a projection of human desires and illusions. If we object that even if the notion has arisen in that way it does not follow that there is no divine reality corresponding to it, the Marxist will stress the phrase of Lenin's quoted above that materialism is "in full agreement with natural science." Marxists, I think, are positivists to the extent that they consider the only reliable knowledge of the world is that obtained by the methods of the sciences, although, as I have shown, they reject the phenomenalism that generally goes with this view. In the *German Ideology*, for instance, Marx and Engels write:[2] "When reality is depicted, philosophy as an independent branch of activity loses its medium of existence."[3] Here, it is true, Marx and Engels are particularly concerned with human society. But in his *Anti-Dühring* (*Socialism, Utopian and Scientific*, translated by Edward Aveling, pp. 39–40),

[1] Pp. 30–31.

[2] P. 15 of the English translation which forms volume XVII of the Marxist-Leninist Library, published by Lawrence and Wishart.

[3] In a letter to Engels dated July 7, 1866, Marx refers to Comte's "positivist rot," and writing to Professor Beesly on June 21, 1871, he says "I as a Party man have a thoroughly hostile attitude towards Comte's philosophy while as a scientific man I have a very poor opinion of it." But I think his objections to Comte were (a) to the political proposals, (b) to the religion of humanity, and (c) to the theory of gradual, i.e. non-dialectical, development.

Engels writes: "That which still survives of all earlier philosophy is the science of thought and its laws—formal logic and dialectics. Everything else is subsumed in the positive science of Nature and history." There is no God because the sciences do not reveal one.

I can hardly undertake, in the course of a summary account of Marxism, to examine this view that there can be no reliable knowledge of the world except what can be erected on the basis of our ordinary perceptions and introspections by the methods of the sciences. I will therefore confine my remarks to the following two comments.

1. Contemporary religious apologists, it seems to me, are perhaps unnecessarily chary of meeting positivists and materialists on their own ground, since there is nothing absurd about having recourse to scientific methods in the attempt to support some of the components of religious belief. The existence of supernatural beings, for instance, is something which properly attested miracles might render probable. Religious apologists to-day, however, tend to regard the appeal to miracles as "materialistic" in some derogatory sense. To believe in the existence of some supernatural being on the evidence of a sufficiently impressive physical demonstration, seems to me, however, to be only reasonable. What would be open to criticism would be to assume that the moral pronouncements of such a being had authority in proportion to its power. This would be to bow down to strength and worship it. Miracles, however, would in my opinion, provide a basis for that belief in supernatural beings without which religion does not thrive, and defenders of a religious world-outlook would justifiably stress their importance and rightly rejoice if they could obtain evidence that miracles had occurred. In his *Marxist Philosophy and the Sciences*, p. 147, Professor Haldane writes: "I do not see why a dialectical materialist should reject *a priori* the possibility of such alleged phenomena as telepathy and clairvoyance." To this I would add that I do not see why a dialectical materialist should reject *a priori* the possibility of survival of the "soul" after bodily death. It would have to be decided, of course, what sort of evidence there would have to be to render such a belief probable,[1] but a good deal of thought and research has, I believe, already been devoted to this intricate question. According to the Marxist, of course, if a "soul" were thus discovered it would be material. For, according to Lenin,[2] "The sole property of matter—

[1] In the *Dialectics of Nature* (Lawrence and Wishart, 1941, pp. 297–310), Engels, in criticizing the credulity of Russell Wallace and Crookes, correctly points out that empiricism can be carried too far, and that the genuineness of new mediums may be reasonably suspect, if most mediums of the past have been shown to be fraudulent.

[2] *Materialism and Empirio-Criticism*, p. 220.

with the recognition of which materialism is vitally connected—is the property of being *objective reality*, of existing outside of our cognition."

2. The Marxists do not merely proclaim the sovereignty of scientific method, they also argue that our justified confidence in it is due to its being a unification of theory and practice. "Before there was argumentation there was action,[1]" writes Engels. He considered that the refutation of Hume's scepticism and Kant's agnosticism is "practice, viz. experiment and industry.[2]" In this last passage he also says that our theories about things are proved correct when we can make the things and put them to our purposes. The argument, I think, is that theories are things that might be framed while we sit in an armchair and think, and if we don't get more active than this the theories are not likely to have much relation to the facts. In order to verify theories we must do more than just sit and think, we must make observations and experiments. This is practice in a sense in which sitting and thinking is not. Finally, we really understand the things about which we are framing theories when we can make and use them. This last is practice in yet another sense. It seems to me important to distinguish these various stages or meanings of practice, since a theory can be verified without the last stage of practice[3]—the making and using—arising at all. For in the first place, the structure of something can be understood without there being any need or desire to make it. And in the second place something might be understood that could not be made by human beings at all, as, for example, a sun. I make these remarks because Marxists, as it seems to me, tend to lay inordinate stress on the relation of science to industry.

The third main element in Marxist materialism (the first two are epistemological realism and the view that matter existed before mind in the absence of a Creator) is its claim to be dialectical. To explain in full what this means would involve an excursion into the history of philosophy for which there is no space here and so I confine my account to the barest minimum.

Dialectical materialism is contrasted by Marxists with the mechanical materialism of the eighteenth century. According to Engels,[4] eighteenth century science still worked largely with notions built up in the science of mechanics and failed to take account of

[1] *Socialism, Utopian and Scientific*, pp. xv–xvii.

[2] *Ludwig Feuerbach*, English translation, 1935, p. 32.

[3] None of the meanings or stages of practice mentioned in this paragraph is identical with practice as the "vital leap" or "animal faith" which leads to epistemological realism. I think, however, that Engels regarded these as continuous with it. See *Ludwig Feuerbach*, pp. 32–33.

[4] *Ludwig Feuerbach*, pp. 36–37.

what is peculiar to the chemical and biological sciences but rather tried to "reduce" these to mechanics. If I understand the position correctly, dialectical materialism does not merely admit but emphasizes that in the passage of time novel types of entity have come into being based upon those that already existed, but with features not reducible to those of their generators. This view is closely akin to the theory of Emergent Evolution advocated by Lloyd Morgan (a writer known to and quoted by Lenin) and Samuel Alexander.[1] That this is the Marxist view is, I think, shown by some curious remarks about matter and consciousness made by Lenin on pages 205–07 of *Materialism and Empirio-Criticism.* Lenin was quite sure that without brains there would be no thinking and even accepted the expression that thinking was a "function of the brain." But he objected to a statement by Dietzgen that "the intangible idea is also material and real" with the remark: "But to call thought material is to make an erroneous step, is to confuse materialism and idealism" (p. 205). It seems likely that by this and a similar statement on p. 207, Lenin means that consciousness, while based on the existence of brains, is not reducible to a series of physical and chemical changes, but has some unique characteristics not to be found elsewhere. If I am right, Lenin is criticizing the theory named by Professor Broad Reductive Materialism in favour of the theory he calls Emergent Materialism, according to which, "mentality is an emergent characteristic."[2]

From what has already been said it will be seen that dialectical materialism is an evolutionary theory according to which from time to time in the processes of change, a gradual accumulation of differences is suddenly succeeded by the emergence of something quite new, I have illustrated this by reference to the emergence of life and consciousness, a topic which naturally interests everyone. The Marxists held, however, that sudden transformations of gradually accumulated changes into a new character may be observed in detail in the various parts of nature. According to Mr. Shirokov's *Textbook of Marxist Philosophy*,[3] (p. 267): "Quantitive changes at a determined stage lead inevitably to changes of quality. Solid iron may be heated in greater or less degree and still remain a piece of iron. However, when the heat reaches a certain point it causes the iron to melt and enter into a qualitatively different state. Capitalist

[1] Referred to by Professor Haldane (*The Marxist Philosophy and the Sciences*, p. 150), as "the only academic philosopher in England whose system has any serious affinity with Marxism".

[2] *The Mind and its Place in Nature*, p. 610.

[3] Translated by A. A. Moseley, revised and edited by John Lewis, Gollancz. The last three parts of this book were prepared under the auspices of the Leningrad Institute of Philosophy.

enterprises though they may be on a big or little scale yet have their higher and lower limits of magnitude. Complete capitalist planning as between all industries is too big a task for capitalism. From the other aspect a capitalist undertaking can by no means be as small as it likes." Scientists who profess the Marxist philosophy have collected many examples of this process of the transformation of quantity into quality, as they call it, but I do not think that they would have thought it worth while to do this unless they were seeking for some cosmic justification of their belief that to look forward to a sudden transformation of human society was "scientific." The juxtaposition of solid iron with capitalist planning in the passage quoted above suggests this.

Marxists regard it as a merit of their view of evolution that it does not merely emphasize, as non-Marxists do not, the sudden emergence of novelty, but also explains how it is that development takes place at all. According to Marxists the motive force of all change and development is an internal contradiction in what changes. Lenin in his *Philosophical Notebooks*[1] writes: "In its proper meaning, dialectics is the study of the contradiction *within the very essence of things*." He also refers to "*the mutually exclusive* and opposed tendencies in all the phenomena and processes of nature (including spirit and society)" as "the identity" or "unity" of opposites.[2] The identity or unity of opposites, he holds, is only transitory, "the struggle of the mutually exclusive opposites is absolute, as movement and evolution are." Engels[3] gives the simple case of movement of a particle as an illustration. "Motion itself is a contradiction: even simple mechanical change of place can only come about through a body at the same moment of time being both in one place and another place, being in one and the same place and also not in it." Other examples given by Engels and Lenin are: the plus and minus signs in mathematics, positive and negative electricity in physics, the class struggle in the social sciences. All change, then, occurs through contradiction or opposition. Evolutionary change, according to the Marxists, takes place through a process they call "the negation of the negation." Process A is opposed by its contradictory not-A, and, let us suppose, A is *succeeded* by not-A. Not-A, in its turn, however, will be the pole of a further opposition and so will be succeeded by its opposite, A. This second A, however, will not be merely the first A reinstated, for the first A was the opposite of a not-A that had not yet replaced it, while the second

[1] Quoted by Generalissimo Stalin in his *Dialectical and Historical Materialism*, p. 9 (*Little Stalin Library, No.* 4. Lawrence and Wishart, 1943).

[2] Note on *Dialectics* (printed at the end of the English translation of *Materialism and Empirio-Criticism*), p. 323.

[3] *Anti-Dühring* (*Handbook of Marxism*, ed. Emil Burns, pp. 256–57).

A is the opposite of a not-A which has already replaced the original A. The outline of this conception was clearly put by the late David Guest[1] when he wrote: "that development takes place in a kind of spiral, one change negating a given state of affairs and a succeeding change, which negated the first, re-establishing (in a more developed form, or "on a higher plane" as it is often expressed) some essential feature of the original state of affairs." Engels[2] gives the example of a grain of barley planted in the ground. This is "negated" by the plant that succeeds it. This in its turn, however, is negated (the negation of the negation) by its own decay. "As a result of this negation of the negation we have once again the original grain of barley, but not as a single unit, but ten, twenty or thirty fold."[3]

We learn from Engels's *Anti-Dühring* that Dühring criticized Marx's use of the principle of the negation of the negation on the ground that it is used as "the midwife to deliver the future from the womb of the past," and, indeed, objected to the whole Marxist theory of contradiction in the nature of things on the ground that contradiction, negation, etc., are logical terms with no application at all to the material world. As a teacher of philosophy, and so, according to Lenin, a "scientific salesman of theology,"[4] I feel some sympathy with Dühring on this issue. As to the negation of the negation, Engels's answer in effect was that Marx did not use that principle as a premise from which to conclude that socialism must come out of capitalism, but found, from an empirical examination of social trend and structure, that that was the pattern they in fact displayed. And as to the contradictions and oppositions, Engels was quite sure they existed in nature as a whole as well as in human society. He assures his readers, however, that the three principles of dialectic (the union of opposites, the transformation of quantity into quality, the negation of the negation) are only very general laws which find embodiment in very different ways in the different spheres to which they apply.[5] If, then, these principles cannot be used as premises of scientific arguments, and if the particular laws of natural development have to be discovered by the ordinary empirical methods known to non-Marxist scientists,

[1] *A Textbook of Dialectical Materialism* (Lawrence and Wishart, 1939), p. 44.

[2] *Anti-Dühring* (*Handbook of Marxism*, p. 262).

[3] St. Paul held a dialectical, though not perhaps a materialist, philosophy, as may be seen from I *Corinthians*, xv, e.g. "So also is the resurrection of the dead: it is sown in corruption; it is raised in incorruption: It is sown in dishonour; it is raised in glory: It is sown in weakness; it is raised in power: It is sown a natural body; it is raised a spiritual body."

[4] *Materialism and Empirio-Criticism*, p. 297.

[5] *Anti-Dühring*, (*Handbook of Marxism*, p. 266).

their positive use in science must be slight.[1] Outside the social sciences, Marxist scientists seem to proceed much as non-Marxists, except that the former, unlike the latter, find it a cause for satisfaction when they can show that the results of scientific research can be fitted into the dialectical scheme. Since, however, the dialectical terms such as "contradiction," "opposition," and "negation" are used in an extremely vague and elastic manner, there is naturally little difficulty in securing a fit. As I have already suggested, Marxists are primarily interested in social themes and seek for the dialectic in inanimate nature mainly in order to sustain and enhance their faith in the dialectical march of history.

There is a further element in the Marxist dialectical theory which must be mentioned before we pass on to make some comments on the theory of Scientific Socialism. "To the metaphysician," says Engels, "things and their mental reflexes, ideas, are isolated, are to be considered one after the other and apart from each other, are objects of investigation fixed, rigid, given once for all. He thinks in absolutely irreconcilable antitheses. 'His communication is "yea, yea; nay, nay;" for whatsoever is more than these cometh of evil.' For him a thing either exists or does not exist; a thing cannot at the same time be itself and something else. Positive and negative absolutely exclude one another; cause and effect stand in a rigid antithesis one to the other."[2] This passage shows that metaphysical thinking, as explained by Engels, is thinking which considers things (a) as though there were no contradictions or oppositions in them and (b) in isolation from one another. I have already remarked on (a), so it remains to comment on (b).

I said earlier that Marxists accept the positivist thesis that the only knowledge we can get of nature is what can be obtained by scientific methods, and I have also suggested that the Marxists' emphasis on contradictions in non-human nature is not a very serious matter since Marxists themselves hardly suggest that scientific research can be advanced only by employing dialectical categories. Indeed, Russian Marxists have sometimes said as much. Mr. Stepanov, for example, speaking of two opposed points of view on dialectics says: "From one of these, dialectics is a method which should be used for knowledge of nature and society, inasmuch as

[1] The editor of the *Correspondence of Karl Marx and Friedrich Engels, 1846–95: A Selection with Commentary and Notes*, (Lawrence and Wishart, 1934), thinks otherwise: "The enormous growth of technique and of the natural sciences in the Soviet Union, the decay of technique and of the natural sciences in capitalist countries, have revealed the conditions in which a full and consistent application of dialectical materialism to research in the natural sciences is possible and can be carried out on the widest scale." p. 115.

[2] *Socialism: Utopian and Scientific*, pp. 31–32.

the use of it leads to fruitful results. From the other point of view, all the fundamental relationships of the real world are given in advance in the ready-made conditions laid down in the dialectical philosophy of Hegel. The study of actually existing things can at the very most afford only additional verification of what are essentially *a priori* assertions."[1] Most of Mr. Stepanov's colleagues, however, dissented, we are told, from his views, which they stigmatized as positivist and mechanistic. They, for their part, appear to hold that it is not dialectically materialist for scientists to stick to their own methods and researches and leave others to talk about dialectics. Such a course would be dangerously departmental and abstract. As Mr. Mitin, who was one of Mr. Stepanov's critics, puts it: "Dialectical materialism is against one-sidedness in science, it insists on the examination of natural phenomena in all their connections and interactions."[2] The thinking of those who fail to observe this precept is described in the same article as "mechanistic-metaphysical." Is this more than to say that scientists should interest themselves in border-line problems and aim at syntheses? When it is Marxist *scientists* who speak, I do not think that they mean more than this. But I think Marxist *philosophers* do mean more than this. The latter, I think, accept the Hegelian view that "the truth is the whole," in the sense that no single proposition or group of propositions is true except in relation to all other propositions and groups of propositions. In the light of this view of theirs, I think they would regard my remark that notions of contradiction and opposition seem to be more properly applicable to the social or human sphere than to the natural sciences, as revealing a hopelessly metaphysical or mechanistic point of view.

Scientific Socialism

According to Lenin, it was Marx and Engels who showed "how to carry materialism into the domain of the social sciences."[3] One thing that this means is that Lenin regarded Marx and Engels as the first to apply scientific methods to the social sciences. Whether he was right in so regarding them we need not discuss, but we must examine a further introductory statement he makes on the application of materialism to the social sphere. "Consciousness in general," he says, "reflects being—this is the general position of *all* materialism. It is impossible not to see its direct and *inseparable*

[1] Quoted in *Basic Trends in Soviet Philosophy*, John Somerville, *The Philosophical Review*, May, 1946. pp. 251–52.

[2] *Twenty-five Years of Philosophy in the U.S.S.R.*, M. Mitin. *Philosophy*, 1944. p. 80.

[3] *Materialism and Empirio-Criticism*, p. 290.

connection with the position of historical materialism, that is, that social consciousness *reflects* social being."[1] Lenin reinforces this with a further argument. "Materialism generally recognizes the objectively real being (matter) as existing independently of mind, sensation, experience, etc. Historical materialism recognizes social being as existing independently of the social consciousness of humanity. Consciousness here and there is only an image of being, at best an approximately true (adequate, ideally exact) image of it."[2] Now it seems to me worth saying at the outset that historical materialism, the theory that the spiritual life of society merely reflects already existing social relationships, by no means *follows* from the theory that matter existed first and mind arose from it later. The latter theory alone prescribes nothing about what mind, once it does exist, can do. It may well be that without bodies there would be no minds. But it requires a distinct argument to show that embodied minds, once produced, can only image their social situation. Lenin's other argument is that society exists independently of individual minds and is therefore a material existent which they "reflect." I have already mentioned that Lenin uses the word "matter" in a very wide sense to stand for *anything* that exists independently of mind—what he calls "objective reality." It can now be seen that this usage of his leads him to think he is saying more than he really is saying when he observes that social being is independent of social consciousness. From this it only follows that social being is material if "material" is used in this unusually wide sense of "objective reality." In this wide sense of the word "material" it would equally follow that minds other than my own are material, a form of statement which, as we have already seen, Lenin refused to commit himself to. It is also the case that a metaphysical idealist, who believed that all matter was basically mental might nevertheless consistently hold that the development of human society depends, not on the minds of men, but on their methods of production. That is to say, just as there is no necessary inconsistency in combining a materialist philosophy of nature with the belief that human minds are the main driving force in social change, so there is no necessary inconsistency in combining an idealist philosophy of nature with the belief that men's methods of production are the prime force in determining the nature of society.

However, while Marxists do use the fallacious argument that materialism in the realm of non-human nature involves social materialism, that is by no means their main argument for historical materialism. Historical materialism is advanced by means of much more direct arguments. The most successful of these, it seems to me, is that sketched out by Marx in his *Theses on Feuerbach*. Prior

[1] *Materialism and Empirio-Criticism*, p. 278. [2] *Ibid.* p. 281.

to his own day, Marx held, materialist thinkers saw how man was subject to natural and social influences upon which his happiness or misery depended, and they put forward plans showing how to ameliorate the conditions of man by changing those influences which caused his misery. Thus Robert Owen showed how faulty social and industrial arrangements caused unhappiness and crime and indicated, both in argument and by example, the sort of changes that would educate men to virtue and happiness. But this, Marx suggests in the third of his *Theses on Feuerbach*, is to ignore two fundamental points. In the first place this sort of procedure really assumes that there are two parts of society, one part consisting of those who might reform society, the other part consisting of the society to be reformed. More than this, the assumption is that there are reformers outside the society who, like gods, can put it right. But reformers are necessarily in society, and so, in the second place, it is necessary to ask how it can happen that anyone should want and try to reform his society. The pre-Marxist materialist reformers forgot that "circumstances are changed by men and that the educator himself must be educated." This line of argument was pursued further by Engels in his *Anti-Dühring* where he argued that the Utopian socialists had omitted to consider why it was that their admirable schemes for social improvement which commended themselves to the "reason" of enlightened eighteenth and nineteenth century thinkers, were prepared at that time and, "reasonable" as they were, provoked laughter and opposition from those who might have implemented them. There surely must be some forces in society which both led to an outburst of Utopian theories and also prevented them from being put into practice on any decisive scale.

In my opinion these arguments are sound. Marx and Engels have formulated the very important social truths (a) that all members of a society are subject to its social forces, (b) that not all social changes that appear desirable are, in that society, practicable, and (c) that only those social changes are practicable which can be linked with a sufficiently powerful existing social agency. These are truths which men of affairs have acted on for centuries, but this does not detract from the scientific importance of formulating them. The contribution of Marx and Engels to our understanding of this aspect of society is most valuable, particularly if we compare it with the roughly contemporary statements of Comte that the evils against which he, like Marx and Engels, protested, could be removed by setting up a "Spiritual Power" that would unite society. However, these truths alone do not constitute historical materialism. For to (a) must be added the vital corollary that the fundamental social force which determines all the rest is the method of production

operating in the society, and further propositions have to be added to the effect that social evolution advances through class struggles and that within our own society the force to which schemes for its beneficent transformation must, if they are to succeed, be linked, is the proletariat. When these truths are understood, says Mr. Stalin, "Socialism is converted from a dream of a better future for humanity into a science."[1]

Clearly, I cannot pretend even to touch on the theme of Scientific Socialism without saying something about the way in which the means and conditions of material production are supposed to determine both the forms of society and the spiritual productions of mankind. The crucial passages from the *Critique of Political Economy* and the *Anti-Dühring* have been so often quoted that it would be idle for me to reproduce them yet again. For a very clear and brief statement I would refer those interested to Marx's letter to P. V. Annenkov of December 28, 1846, and to the *German Ideology*. In the first, Marx says that society is "the product of man's reciprocal activity," and goes on to argue that they cannot behave towards one another as they choose, since they are born into a society with its ways already established. What has determined the ways we find are "the productive forces won by the previous generation." In the *German Ideology*, Marx and Engels have more to say about the "productive forces." What distinguishes men from animals is that they "*produce* their means of subsistence." In order to produce their means of subsistence they must use their hands and, later, such tools as they can devise. In working with their hands and tools they necessarily come into contact with one another in ways which the work they are doing and the tools they are handling will determine. Their life and their acts are the same thing, and as they work with others, so their life will be. Important among the means of production will be, of course, their language, without which complicated social tasks would be impossible. The discovery of a new way of producing their means of subsistence (e.g. the taming of wild animals) will change their mode of working and so the way in which the individuals fit together will be a different one, and the structure of the society will have altered. They will then have a different mode of life, act differently, talk differently, be different men. "Men are the producers of their conceptions, ideas, etc.—real, active men, as they are conditioned by a definite development of their productive forces and of the intercourse corresponding to these, up to its furthest forms. Consciousness can never be anything else than conscious existence, and the existence of men is their actual life process."[2]

[1] *Dialectical and Historical Materialism* (*Little Stalin Library, No.* 4), p. 15.

[2] *German Ideology*, p. 14.

When a theory seems obviously true to some intelligent people and obviously false to others, it is probable that the contending parties have a different understanding of the point at issue. Now I think there is some misunderstanding about the point at issue in the materialist conception of history. If a people change their way of getting their living then consequential changes are inevitable, for the very simple reason that they will find themselves in different situations which will call for different conduct. When, for instance, a pastoral people commence agriculture, sooner or later arrangements will have to be made for keeping people from trampling the growing crops and so a control over land will develop different from anything that had obtained before. At the risk of some measure of sophistication we may say that agricultural society requires a different law and morality from those which exist in pastoral society. It is not possible to start agricultural production without at the same time organizing access to the land and its protection from those who might damage it. The hunters and the farmers must arrange their conduct towards one another. Thus, to say that a change in methods of production will cause a change in law and morality is uncommonly like a tautology. It is not so much that the one change brings about the other as that the change is all really one change. It is also part of the same change that farmers will think differently from hunters. They will think more of seeds and harvests and less of spoors and camping grounds. All this, I suggest, is undeniable, and it is this that is rightly asserted by the upholders of the materialist conception of history.

Then what is being denied by those who deny the theory? What opponents of the theory are denying, I think, is the proposition that the only way in which a society's law, morality, and thought is changed is by changes in its means of production. It is possible, they argue, for the law of a society to be made more subtle, for its morality to be made more rational, for its thinking to become more effective, even though no new tools are discovered or no new means devised of using the old ones. They argue further that some thinker (say an Egyptian mathematician) might invent a device (say a means of measurement) which will be used to improve the methods of production (say the remarking of constantly flooded land), and so demonstrate the power of thought over production. Marxists, when faced with this type of argument do not contest it. Rather do they say that to deny it would be undialectical. The means of production form the basis of society but the superstructure of thought and morality are not inert, but in their turn interact with the basis from which they spring. Once we get to disputing which of various social "factors" is "predominant" there will be no end to argument as Plekhanov pointed out in his *Materialist Conception*

of History. Marxists tend to argue, however, that it is the spur of need and the urge to help on our productive resources that lead men to elaborate their law or develop their science. In this, however, I think they exaggerate. Genuine products of the nineteenth century as they were, Marx and Engels were quite convinced that life is work. So, of course, it was and is for many. But there are few for whom life is nothing but work, and at both ends of the social scale there are people for whom it contains little work at all. On what grounds is it then maintained that it is the working period that necessarily determines the whole nature of the life? The ground that may be offered is that without work (production) life cannot be maintained. But it by no means follows from this that the working period is the sole determinant of man's nature. I think it is this mistaken view that leads to the widely held Marxist theory that science is the child of industry. It is undeniable that craft and industry have been important factors in the development of the natural sciences. But what Veblen calls "idle curiosity," an activity of leisure rather than of industry and pursued for its own sake alone, is equally necessary for the growth of science as we know it.

There is a further element in the view sketched out in the *German Ideology* which, it seems to me, is often lost sight of. This is the pronouncement made in the sentence I have already quoted: "Consciousness can never be anything else than conscious existence, and the existence of men is their actual life process." In this passage, I think, Marx is stressing not so much the materialism of his view as its concreteness. His point, as I see it, is that the man who thinks is the same man as the man who works, loves, and eats, so that to consider his thoughts apart from his other activities is to consider them in the abstract and not as they really are. Furthermore, according to Marx to consider human nature apart from the real activities of men at a given time and place is also to make a misleading abstraction. Just as there is no thought that is not part of some man's life process, so there is no human nature that is not the nature of given men living in definite ways. This part of the *German Ideology* is advocating an empirical approach to the study of human society untrammelled by preconception about what is and what is not "natural" to mankind. The contention, I suggest, is sound irrespective of Marx's views on the supreme influence of work. Indeed, although I distinguished between work and leisure activities in order to counter what I regarded as Marx's exaggeration, this distinction itself should not be erected into a falsifying abstraction. In our own society, it is true, we make a sharp distinction between working and leisure *time*, but within each period of time there may be activity both of the work and of the leisure type, instrumental activity and activity for its own sake. In some

other societies not even the times are divided.[1] The mistake, I suggest, is, having distinguished them, to regard one as causing or determining the other.

The primary aim of socialists has been to set up a form of society free from the economic injustices of the prevailing social order. Their opponents have generally replied that, while the injustices may be mitigated, they cannot be removed because they are rooted in fundamental elements of human nature. Socialists frequently counter by maintaining that human nature is different from what the defenders of the present order say it is and that men will work for the public good as well as for private gain. Marxist socialists, however, do not take part in this sort of argument at all. In their view capitalist society is by its own operations producing within itself a new society which will ultimately remove the economic injustices by transforming the order that creates them. The moving force arises in the industrial system itself which requires for its working a proletariat who are at present exploited but who will inevitably decide to control the system themselves. It follows therefore that the way to obtain a socialist order is to work with the proletariat to that end. They are the existing social force destined to establish a socialist society.

I should like to make the following comments on the view thus inadequately sketched.

1. It assumes that there are social trends which proceed even though no one deliberately aims at producing them. In this, I think, Marxists are correct, since there is no reason to suppose that the result of many different and conflicting aims will be the achievement of any single one of them. Marxists also think, however, that they know in general what the course of social development will be. Such confidence, I should have thought, is not justified. How can we assess its value? In the same way, I suggest, as we assess the confidence of any putative scientist—by seeing whether his predictions and experiments come off. Marxists, when confronted with this challenge, point to Russia. The existence there of a socialist state (though not yet of a communist order of society) does demonstrate for those who needed it, that an economic order other than the capitalist is possible in our time. But it is a long way from this to a new order of society for mankind. The scientific value of the long term theory would be greater if by means of it Marxists had been better able than non-Marxists to predict a short distance ahead on more confined matters. I doubt, however, whether Marxists have shown themselves much better social prophets than non-Marxists. It may be said, of course, that they are unable to obtain enough information on which to use their general principles in order

[1] Professor L. J. Russell called my attention to this.

to make short-term restricted prophecies. This may be so, but it still remains that their account of the long-term social trend is a guess, though perhaps a happy one. As such, of course, it plays its part in determining the future, as one of the ideas that contribute to history's making.

2. Let us suppose, for the sake of argument, that the Marxists are right in believing that they have a scientific understanding of the processes of history and can descry its main future trend. How, then, can this knowledge affect human conduct and morality? According to Marx and Engels, "freedom is knowledge of necessity." Before we know the laws of physical nature we do not control nature but are controlled by it. When we understand natural laws we can foresee some of the future and act on the world in ways which serve our purposes. Similarly, so long as we are ignorant of the laws of social development social events appear to us as arbitrary and unforeseeable, but once we have a scientific knowledge of social forces, once we "grasp their action, their direction, and their effects," we can "subject them more and more to our will."[1] This parallel between the knowledge that gives us control over the physical world and the knowledge that gives us control over society is plausible, but I suggest, misleading. For the "we" who, through knowledge of natural laws control nature and are to that extent free, are mankind as a whole, a set of beings distinct by their possession of reason, from the world they are controlling. But who are the "we" who by their knowledge of social laws, are to control society? Marx himself has taught us not to regard ourselves as outside society. It is therefore important that we should be clear about who does the controlling, and who is controlled when we have a social science to guide our actions. Auguste Comte thought that the social scientists should control the rest. The Marxists clearly wish to say that society will understand and so regulate itself. In fact, however, there will be some people who claim to know the direction society is taking and will like it, and there will be others who won't think society is going that way and in any case won't think it a desirable way. The result as Marxists anticipate, is struggle, and if they have predicted well, the control will be by the proletarian victors until all have come to see the necessity of the process. The difference between Marx and Comte is not so great after all. Both are exponents of government by social scientists[2] and both, I think, tended to think that the way to choose a social ideal is to find

[1] Engels, *Socialism: Utopian and Scientific*, p. 73.

[2] Cp. Lenin, "Those who are really convinced that they have advanced science would demand not freedom for the new views to continue side by side with the old, but for the substitution of the old views by the new ones." *What is to be done?* p. 14.

what the society is moving to and want that. We are asked in effect to bow down before the future conqueror whose advent we may delay but cannot prevent.

3. It is characteristic of Utopian thinking to criticize the present in terms of an ideal future but to give only perfunctory attention to the means of passing from the present bad to the hoped-for better condition. Undoubtedly the Marxists have improved on the Utopians in this respect by showing that reforms can only be carried out by men who know how to make use of the possibilities inherent in their society. It seems to me, however, that the leading Marxist thinkers have given far too little thought to the moral problems involved in movement towards a classless society. Engels[1] says that each class has its own morality and Mr. T. A. Jackson, expanding this point, writes: "In a class-divided society there are and must be *as many positive moralities as there are classes.* That is why class struggles in their full development permit of no compromise: that is why they must be fought out to a finish."[2] In consequence the existence of any morality that transcends classes tends to be questioned or at least its efficacy is denied. And both Engels and Marx stigmatized as "petit-bourgeois" Proudhon's attempt to show how moral principles ought to apply in the economic sphere.

In the first place, when it is said that different classes have different moralities, there are two different things that could be meant. It could be meant (a) that the different classes in question recognize neither the same moral principles nor agree in their application to particular types of situation or (b) that the same moral principles are recognized but there is considerable difference of view as to what action is in accordance with them; (a) it seems to me is obviously false and (b) obviously true. But it by no means follows from (b) that class struggles must "be fought out to a finish," if by this is meant that neither party has any obligation to the other. It is true that conditions of repression may justify war with the oppressors, but the resort to war, on any system of morality, requires justification not only in terms of the extent of the oppression but also in terms of the possibilities of other methods of settlement and a reasonable forecast of the outcome for all the parties. Generally when contending parties claim that they have no moral principles in common what they really mean is that they do not propose to observe moral principles in the struggle they are engaging in. The adoption by any group of this attitude cannot but debase the moral currency. It is in fact the appeal to force rather than to reason, the open invitation to an all-in fight. It assumes that men can associate and yet have no moral relationship to each other. I cannot believe

[1] *Ludwig Feuerbach*, p. 50.

[2] *Dialectics*, p. 363.

that this is seriously maintained, whatever may be done at times of stress and passion.

In the second place, however, Marxists are clearly right in holding that to preach moral generalizations about love and fellowship can have little effect on the moral problems of our time. It is not so important to tell us *that* we should love our neighbours as to tell us *how* we can do so. The conclusion I draw from this, however, is not that there are no moral principles valid for all men, but that intelligent efforts should be made to agree on what content can be given to them in circumstances that differ so extensively from those holding when our moral codes were formulated.

PHILOSOPHY AND MATHEMATICS

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"Philosophy is one: and when we treat of Aesthetics, Logic, or Ethics, we treat of philosophy as a whole, although for convenience of exposition we may fix our attention upon a single aspect of this indivisible unity."—CROCE[1]

THIS essay is an attempt to take stock of what has been done by those who have worked on the foundations of mathematics and to suggest, very inadequately in so short a space, what may be a satisfactory approach to this subject for one who is not an expert in it. The subject is one that neither mathematicians nor philosophers can any longer afford to ignore, but in the technicalities of which they may not be very interested.

Towards the end of the nineteenth century a few mathematicians turned aside from the actual development of mathematics and began to examine critically what had already been discovered. As time went on, other mathematicians also took up this examination of the foundations of their subject, and to-day there exists quite a considerable literature. It is true that none of the major theories that have been put forward has won general assent; but nevertheless we can distinguish certain fairly definite trends in the general development of ideas.

This field of study, in which we inquire into the nature and validity of mathematics, may conveniently be referred to as "mathematical philosophy" although, as we shall see, its boundaries are by no means well defined. The different schools are most easily distinguished by their answers to the question "What is mathematical knowledge, and how is it obtained?" and this may be regarded as the fundamental question of mathematical philosophy. But as soon as we have formulated it explicitly we see that it does not lie within the province of mathematics at all; it is a philosophical question, and is logically prior to mathematics. To answer it properly we should have to consider first the wider question "What is knowledge?" and then we could base our answer to the narrower question upon the answer already given to this.

The inability of mathematics to determine its own nature should not be looked upon as a defect, for it is common to all isolated branches of knowledge. Philosophy is a unity, and no part of it can be fully understood except in relation to the whole. The mathematician is fairly safe in ignoring philosophy as long as he is content

[1] Croce: *Estetica* (4th edition, p. vii).

merely to develop the formal consequences of definite assumptions, whether these are drawn from experience or arbitrarily postulated, but as soon as he becomes interested in wider problems it is necessary for him to change his point of view and to become a philosopher in the more restricted sense.

The principle of the unity of philosophy has a two-fold application to mathematical philosophy. In the first place, as we have already said, mathematical philosophy itself does not exist as an independent subject. It consists of those portions of philosophy that deal with mathematical knowledge, arbitrarily collected for convenience. It is in fact a compendium of results, classified according to their subject-matter; but each of these results is only completely itself in its proper context in the whole system of philosophy.

The second application of the principle is to mathematics itself. Mathematics is not an independent subject, and it cannot be separated completely from other subjects such as logic and physics. Indeed, any breaking up of thought into subjects is artificial, and no sharp boundaries exist. It is nevertheless often desirable, and even necessary, to think in terms of distinct subjects; and when we do this we should regard mathematics not as a separate subject but as a common constituent which is present in varying degrees in a number of subjects. We may find it helpful to think of the various branches of science as spread out in a kind of spectrum, ranging from the comparatively unmathematical sciences of pure classification at one end to mathematics proper at the other. We do not mean this illustration to be taken literally, and we certainly do not wish to suggest that every subject that is partly mathematical finds a place in a single series; but the image may help us to understand how the traditional subjects are obtained by selecting stretches of the spectrum—the inexact sciences, the sciences of measurement, mathematical physics, applied mathematics, pure mathematics, etc. Such divisions are useful up to a point, but it is a mistake to suppose that the names correspond in any way to absolute distinctions.

What is it that distinguishes this peculiar mode of thought that we call mathematical? Mathematical thought is not a special mode of thought carried on by a separate mental faculty. The mathematician thinks in the same general way as other men, and he is distinguished only by the kind of problem with which, as a mathematician, he is concerned. Thus the distinction is extraneous and empirical; in making it we are reasoning inductively from the nature of the activity of recognised mathematicians. This does not mean, however, that our inquiry is philosophically worthless. We examine the current distinction between mathematical and non-mathematical thought, trying to see what it really amounts to and to what extent

it is reasonable and conformable with our philosophy. In this way we may hope to deepen our insight into both the nature of thought as a whole and also the nature of mathematics. We thus test our philosophical outlook and our conception of mathematics against each other, in order to assist the development of both.

We cannot hope to give an adequate definition of mathematics in a few words; for mathematics has grown up over a long period of time and is still developing. Our conclusions must be taken as suggesting, rather than completely specifying, its character in the light of present knowledge. At best we can give an answer which is appropriate at present; an answer which will remain adequate in the future is quite impossible. Kant thought that the entities of mathematics—numbers, geometrical figures, etc.—owed their reality to the fact that they could be constructed in intuition. We could thus have synthetic knowledge of them *a priori*, and we could also apply this knowledge to phenomena. This was no doubt a very reasonable view of mathematics as Kant knew it, but it is no longer adequate; for we are now familiar with other systems of geometry on an equal logical footing with that of Euclid, and mathematicians work with all kinds of abstract systems that bear no relation at all to experience.

A slightly old-fashioned view of mathematics is that it is a science of pure quantity, and this is still partially true. But it is hardly sufficient as it stands, as "quantity" must be interpreted in so wide a sense that it loses most of its significance. In modern mathematics the importance of the concept of order is comparable with that of quantity in the narrow sense. It is therefore perhaps advisable to say that mathematics is concerned with structure rather than with quantity. A piece of pure mathematics is an exposition of formal relations between abstract entities, and one of the chief tasks of the mathematician is to disentangle the logical connexions between these formal relations. We have here one of the most distinctive characteristics of modern mathematical thought. The theorem of Pythagoras, for example, was formerly thought of as a property of the space of common experience. It was strictly deduced from a few self-evident properties of this space, and was therefore itself certain. But to-day the points of Euclidean space itself are conceived as merely abstract entities, connected by certain postulated formal relations. The "space" is an abstract model; and we may interpret it as an approximation to physical space, as the artificial momentum-space of a single dynamical particle, or as any other system that has the same structure. From this point of view, the mathematical theorem is no longer Pythagoras' theorem itself, but the fact that this is deducible from the Euclidean axioms.

The natural direction of development of mathematics is from the

more concrete to the more abstract. Thus Euclidean geometry began as a collection of properties of actual space, set out in a logical system. Then it was seen that this space could be used as a model for other kinds of system, and ultimately the spatial conception was reduced to just one interpretation among many of an independent formal scheme. This process of abstraction, of picking out the common structure of very diverse systems and focussing attention upon it alone, is what we mean by mathematical thought. The study of formal systems themselves, without reference to any interpretation, is the most mathematical intellectual activity of all, and we may call it pure mathematics. Pure mathematics is thus a kind ot extreme case. We shall find it convenient to consider it briefly by itself, bearing in mind all the time that it can only be fully understood and appreciated when it is seen in relation to mathematical thought in the widest sense.

Mathematics, in the above sense of pure mathematics, has a dual nature. It is at the same time both a calculus, or tool with many and varied applications, and also an artistic creation of purely aesthetic value. We cannot afford to neglect either aspect.

We meet the use of mathematics as a calculus, in rudimentary form, in elementary algebra, where the same equation may be used to solve countless particular problems. In higher mathematics, whole theories are capable of receiving many interpretations. In a sense, mathematical knowledge is the poorest of all forms of knowledge; for the degree of abstraction is such that only a few external relations between the entities are left. This same characteristic, however, also accounts for its great richness of application. Since everything but structure is disregarded, the same mathematical theory may be used to represent very diverse concrete systems. These systems may differ in any way, provided only that they have the same structure. A simple instance of this is afforded by the real numbers, which may be applied to every kind of measurable quantity. Less simple instances will occur readily to the mathematician or physicist.

An elegant piece of mathematics can give great aesthetic satisfaction to one who fully appreciates its structure. This satisfaction is really delight in perfection of form and is closely akin to that which is given by some of the music of Bach. Complete abstraction from everything else reveals purity of form.

Historically, much of modern mathematics has been derived by actual abstraction from more concrete systems; for example, the theory of vectors. Other parts have been devised as abstract theories from the beginning, with little or no reference to anything outside mathematics; for example, Cantor's theory of transfinite numbers. In the first case mathematics is more of a calculus than an artistic

creation; in the second it is more of an artistic creation than a calculus. Usually the development of mathematical theories is very complex, being the result of the co-operation and opposition of many mathematicians with different points of view. It is philosophically rather unprofitable to examine in great detail the actual forces and motives that have determined the historical development of mathematics.

These general remarks may be amplified by considering in turn each of the three well-known schools of mathematical philosophy.

Logistic.

It would be difficult to overestimate the historical importance of the movement that began with the investigations of Peano and Frege and culminated in the publication of *Principia Mathematica*. An entirely new field of research was opened up, and all later developments in mathematical philosophy have been influenced, directly or indirectly, by this movement. The intention was to reduce mathematics as far as possible to logical terms, and the thesis of *Principia Mathematica* is that mathematics is simply a branch of logic. An elaborate logical calculus is constructed, and it is proposed to rewrite all mathematics in this symbolic language.

Although this attempt has been fruitful in many ways, and research in the subject is still going on, the actual conclusions of Russell and Whitehead have not been widely accepted. The reason why they are unacceptable is not so much that the system contains occasional formal weaknesses as that the whole programme is too artificial. To take only one example, we cannot help feeling that the definition of the cardinal number three as the class of all triads is most unnatural. It would be more in accordance with common sense to say that three is a common property that characterizes the class of all triads; and we do not wish to go against common sense unless we are forced to. If we can build our mathematical superstructure on a comparatively unsophisticated logical foundation so much the better.

The concept of logic that is presupposed in the *Principia* is too narrow, and this has led to the encroachment of grammar and syntax upon territory which properly belongs to logic and philosophy. The logical structure of actual thought is far too complex to allow of reduction to an algebraic symbolism. For some purposes mathematical logic is a very useful tool, since it enables us to fix our attention upon certain kinds of logical connexion; but it is then only a tool, and we must be careful not to identify it with logic itself. It is in fact a kind of formal algebra; and as such it is a part of mathematics, not something prior to mathematics. The elaboration of the formal calculus is a mathematical undertaking, like the

elaboration of every other formal calculus. Its application to logic, and the determination of its value and its limitations are then tasks for the philosopher. The logical connexions to which mathematical logic applies are necessarily external connexions, since we have abstracted from all content, and they often concern language rather than logic. Thus the kind of logic considered in the *Principia* is far from all-embracing.

Formalism.

The Formalists have maintained that pure mathematics is con cerned with the formal manipulation of symbols, and this view is substantially correct. It may be remarked, incidentally, that the idea that Hilbert taught that mathematics is just a game played with meaningless marks on paper is a popular misconception. What he really did was to distinguish carefully between the construction of the formal calculus and an application of this calculus, in which meanings are given to the symbols; and he found it convenient to confine the name "mathematics," or "pure mathematics," to the formal construction.

"Formal axiomatic systems must necessarily be supplemented by intuitive systems, since only these can guide our selection of formal systems, and when the formal systems are given only the intuitive systems can indicate how they are to be applied to actual situations."[1]

The Formalists' conception of mathematics is, however, too static. They propose to reduce the various branches of mathematics, one by one, to strict axiomatic form, every step in the derivation of a theorem then being carried out according to definite formal rules; and when any such branch has been cast into this form, and proved to be free from contradictions, it may be regarded as finished. In reality however, the whole body of mathematics must be conceived as continually evolving. Those parts which have been studied in the greatest detail naturally lend themselves to a higher degree of formalization than those which are more rudimentary, and at any given stage in the development of mathematics each branch should be formalized to the appropriate extent. While it is perhaps in some ways desirable that we should have an ideal of complete formalization before us, such an ideal only serves to point out a direction of advance and is not itself attainable. We must also bear in mind that every part of mathematics is connected with every other part, and that the development of a new theory may suggest a new way of looking at an elementary theory which had previously appeared to be fully understood and incapable of further improvement.

[1] Hilbert & Bernays: *Grundlagen der Mathematik*, I, p. 2.

In order to avoid formal contradictions of the kind that gave so much trouble in *Principia Mathematica*, Hilbert proposed to give an actual proof of the consistency of his system. This proof was to use only "finite" arguments—that is arguments of a special elementary character, whose validity can hardly be doubted. Even without Gödel's formal proof of the impossibility of realizing this programme, it is clear on general grounds that the procedure is not very satisfactory. For how, except by arbitrary decision, are we to decide which methods of inference can be accepted immediately and which need justification?

The whole question of freedom from contradiction in mathematics needs to be reconsidered. It is natural to ask whether formal consistency is sufficient in itself to make a mathematical theory valid, and to what extent it is an essential characteristic of mathematics.

The successive removal of contradictions plays an important part in the development of thought in general, as may be seen very clearly in natural science, where the fundamental concepts are defined afresh every time it becomes apparent that they are inconsistent with one another or with the results of observation. But an essential element in mathematical thought is abstraction, and the more we abstract from specific content the less opportunity there is for contradictions to arise. In a purely formal system the only kind of contradiction that can occur is the external contradiction "A and not-A." But since the system is already entirely formal it involves no concepts that can be redefined, and the contradiction results not in progress but in deadlock. Since finality has already been reached there is no further room for contradictions, and if they occur they are simply an indication that the system is imperfect.

Freedom from contradiction is thus an essential property of the fully-formalized ideal theory. But in practice very few branches of mathematics approximate at all closely to this formal ideal, and freedom from contradiction accordingly loses its absolute character. As long as mathematics still involves non-formal elements, the development and elimination of contradictions are important elements in its evolution.

Intuitionism

The Intuitionists have proposed to assign limits to the legitimate methods of procedure in mathematics, allowing only constructive definitions and inferences. Their idea is not so much to justify the final system by a "finite" proof of its consistency as to develop the system itself by "finite" methods alone. For instance, in order to establish the existence of a mathematical entity that satisfies certain specified conditions it would be necessary to define a process that enables us to construct such an entity—as, say, the process used

for extracting square roots in elementary arithmetic enables us to construct a number whose square is 2.

Such restrictions, however, make the subject very complicated. There are familiar theorems of ordinary mathematics that do not satisfy them, and in such cases a single theorem may have to be replaced by a number of partial equivalents. We now know that it is possible to go surprisingly far in Intuitionist mathematics, but even so the subject can hardly be regarded as an adequate substitute for ordinary mathematics.

Intuitionism should perhaps be looked upon as an attitude or an outlook rather than a system. If "existence" in mathematics is understood in too wide a sense, the subject can easily degenerate into a mere playing with words or symbols; the theory of transfinite numbers, for example, comes dangerously near to this. The introduction of Intuitionism was a reaction against this kind of extravagance. Such a reaction was healthy and desirable, and mathematics must never lose sight of the Intuitionist ideal; but in spite of its value as a reaction, Intuitionism cannot become a positive philosophy of mathematics. As we said with reference to Formalism, the bounds of thought cannot be fixed in advance; and both Formalism and Intuitionism violate this principle.

Conclusion

It will be seen, then, that while we cannot accept the conclusions of any single school, yet equally we cannot dismiss any of them as unimportant. Each school has made valuable contributions to mathematical philosophy, and mathematics can never go back to its state before the publication of the researches of Russell, Hilbert, and Brouwer. But although each theory of the nature of mathematics contains much that is valuable, none enshrines the whole truth; and it is because they all claim a certain finality that they are unacceptable. There is no finality in this kind of inquiry, and although the great mathematical philosophers have stated their conclusions dogmatically (as anyone must who has a theory to expound) they would doubtless all wish to see the inquiry carried beyond the point at which they have left it.

Our own conception of the nature of mathematics—and one which we think many contemporary mathematicians would accept—is that mathematics is concerned with structure and each mathematical theory is a formal scheme which displays a particular kind of structure. Any particular kind of structure is best investigated by means of an axiomatic model, but in choosing our axioms we are always guided by a more intuitive knowledge of the kinds of structure that are interesting, significant, and of widespread occurrence. Mathematical thought, understood in a wide sense, differs from

other varieties of thought only in its subject-matter; like them, it continually evolves, and the criteria by which its validity must be judged are in the last resort general philosophical criteria. Mathematics cannot be separated from philosophy, and it can never be understood properly in isolation.

We have raised a number of problems but not discussed any of them in detail. There are many such problems, each of which needs to be treated at length, and it is impossible to deal with them in a brief essay of this nature.

The judgment that finality is unattainable in philosophy applies, of course, to critical research as well as constructive, and any criticism of mathematics and mathematical philosophy can itself only be tentative. But "whereof one cannot speak, thereof must one be silent."

THE PSYCHOLOGY OF "MINE"

LEON LITWINSKI

Summary: (1) Property a psychic link. W. James on self and mine. (2) Acquisition and conservation in the light of expectation. (3) Expectation in philosophy and psychology. (4) Baldwin and property. (5) Bentham. (6) Why acquisitions are conserved. (7) Property as the basis of expectation and as witness of foresight. (8) Possessive pronouns. (9) Animals and children. (10) Property viewed objectively by Petrucci and subjectively by Bentham.

(1) Throughout the following article I propose to consider the phenomena of acquisition and of possession, taken in their widest sense, i.e. comprising the acquisition and conservation of wealth, both material and non-material.

"Tell me—one might say—what you possess by way of lodging, furniture and tools, clothing, provisions and reserves, knowledge and ideas, relationships, links and attachments, etc., and I shall tell you exactly who you are."

"If you own nothing of all this, you are nothing."

One is somebody in the proportion of material and moral goods one possesses.

This is the reason why W. James could say that the *self*, taken in its broadest sense, envelops all that a man can call *his own* (*Précis de Psychologie*, p. 228).

The notion of *expectation* (in French *attente*, in Latin *ex-pectare*, i.e. to look out for, in German *Erwartung*, in Italian *aspettazione*, *attesa*) leads us to a revision of our ideas upon the ultimate character of a fundamental link in man's activity.

In the application of this notion of expectation to the links which the *self* creates and entertains with the outside world, taken in its most varied aspects, we shall try to remain within the boundaries of contemporary psychology. We shall undertake to demonstrate that the classic notions, as they appear in the handbooks and summaries on psychology, such as memory, interest, attention, etc., may easily be applied and verified in the instances taken from real life, as selected by us.

In his study on personality, Ch. Blondel justly took his inspiration from this idea of W. James's. According to Ch. Blondel (*Traité de Psychologie*, p. 534), the "self" never appears without bringing "mine" in its wake. My men, my workers, my soldiers, we talk of them all as though these beings were ourselves, incorporated in us.

(2) To devote one's attention to "mine" is in fact to understand the essence of personality. I propose to do so here with a view to extrac-

ting a clearer picture of the phenomenon of acquisition, both material and non-material, among men.

I say material and non-material, for although as a rule we confine ourselves above all to material possession, it is evident that both ideas and objects can be equally well acquired and conserved, can be worked upon, transferred and abandoned. The *acquisition* of ideas is nothing else than their perception. Ideas may correspond either to concrete objects or to abstract ideas.

We say: "I have abandoned all my youthful illusions," which means: "I have detached myself from ideas I once cherished."

As I have satisfied myself that my ideas were wrong, dangerous, ridiculous, I am no longer linked to them, they have become foreign to my soul, I do not expect any good to accrue from holding them any longer.

This, therefore, is clearly a question of a *link of expectation.*

As to the conservation of ideas, it depends upon the memory in so far as we are gifted with the aptitude of *reproducing* them.

In short, it is by way of perception that one acquires ideas and it is through the memory that one conserves them.

Just like a household, a shop, a workshop, or a business, memory tries continually to organize itself within its mental scope, by putting things in order, avoiding over-crowding, advancing to an objective, economizing efforts, and struggling for an easier existence. With this end in view, certain ideas, certain relationships, are abandoned, must give way to others, are substituted, removed, or consigned to oblivion, just like material things that have grown too old, or have become useless, depreciated or dangerous.

The acquisition of material objects, of ideas, of relationships, whether due to sensorial experience within which our organic activity takes place, or due to our social experience within which our will-power is set in action on a large scale, always implies a *selection.* This selection is ruled by *interest* which governs it both at the moment of acquisition and during the period of conservation, in the latter working through ideas about the future, as based upon past experience. We direct ourselves through the mechanism of *attention.* According to Ebbinghaus (*Précis de Psychologie*), our attention becomes voluntary as soon as it becomes *provident.* It is the absence of all voluntary choice that explains the puzzling embarrassment of the man who comes unexpectedly into a legacy, or the comic element in winning the first prize in a lottery, a situation often quite grotesque and which has been made excellent use of by the novel, the film, and the theatre.

The *milieu* in which man leads his existence admits of three essential elements, in the presence of which he must continually act and react. These elements are: climate, nourishment and society.

Bound to maintain his thermic equilibrium, on pain of extinction, man has recourse to nourishment and clothing. He does not find them always freely within reach. At the lowest stage of his evolution, man contents himself, to this effect, with establishing essentially unstable relationships of simple *appropriation* (detention, occupation). As his activity goes on developing, he transforms such relationships more and more into those of *possession* (stage of growing providence). And as social life advances and crystallizes, individual possession becomes coupled or more or less protected by social acknowledgment, and is called property.

The term *property* corresponds, therefore, to the most developed stage of the phenomenon with which we are dealing here. Property is consequently more complex than appropriation or possession, since it is the more provident and the least precarious of the three. It is also the most varied. We may, for instance, be proprietors or owners of objects that we have never appropriated. In the paper published in 1913, I pointed out the different aspects of this problem. ("Qu'est-ce que la propriété" in the *Revue Internationale de Sociologie*, Paris, 1913.) I analysed therein the indispensable conditions under which *appropriation*, *acquisition*, *possession*, and *property* are liable to appear.[1]

It is in this laboratory of "mine" that the work is unceasingly carried on to which we owe all that constitutes our personality. This personality is a result of our inborn tendencies, our preferences, our character, or absence of character.

We surround ourselves with objects, ideas, links, and incessantly we go on increasing or diminishing their number or their intensity. The different things attached to "mine" are not felt ours equally to the same extent. In our conscience we elaborate a hierarchy of their relative values. We prefer a building of bricks to one of wood, our mother to our mother-in-law, honour to money or vice-versa. There are ideas that we cultivate, and ideas against which we protest or defend ourselves.

Everybody knows the contempt of Diogenes for objects with which others greedily strive to surround themselves. He used to walk bare-footed all the year round, slept wrapt up in his only cloak, and used a barrel for his dwelling. He is said one day to have seen a child at a well drinking water out of the hollow of its hand. "This child shows me that I am still keeping superfluous things," exclaimed Diogenes, and smashed the bowl he had used for drinking. Diogenes set most value on spiritual acquisitions. A miser, on the contrary,

[1] From the juristic point of view, possession, i.e. the fact of exercising power over an object, is, under certain conditions, generative of the right of property. In this sense, to possess is equivalent to exercising a real right over an object, it being immaterial whether this right has been recognized or not.

grows to be enslaved by the very objects which he heaps up around himself, utterly at a loss to know what to do with them. For him life becomes a burden, a load that is often unbearable.

Socrates, visiting one day the soukhs of Athenes, cried out joyfully: "How many things there are that I simply don't want!"

The position is the same if, after having observed the links of expectation that attach us to material objects, we turn to the world of spiritual ties, and to the world of social ties.

Our minds gather such a wealth of ideas and knowledge that we are unable to classify. Our faculties are overburdened. The mind is so to speak congested and confused.

On the other hand, it may be that the mind is so bare of ideas that for lack of associations we can retain very little in it.

The social relations we entertain may become so numerous, intense and absorbing that we can no longer follow them up. Relationships, which were once cordial and vigourous, relax after a time, become stale and tiresome. If we think of the worldly life we are tempted to say with Talleyrand that life would be easy to bear were it not for its pleasures.

There are others, however, who for lack of social ties become recluses, hermits and strays.

Between these two extremes is the perfectly balanced man whose rule is "nothing too much," who suffers from neither excess nor want of objects, ideas, or social ties.

(3) Up to now we have dwelt above all upon the *extent* and *intensity* of the phenomenon of acquisition and conservation among men.

Let us pass on now and consider more particularly the psychological nature of the link that attaches the self to the outside world.

The nature of this psychological link was first revealed by Bentham in his "Principles of the Civil Code" (Part 1, Chapter VIII), published some 125 years ago. It is true that in his study on property conceived as a link of expectation, Bentham confines himself to links between man and the objects of the outside world. In a couple of pages Bentham defines these links by the concept of expectation, unaware that the concept in question, far from being applicable exclusively to the material objects of the outside world which are tied to their holder, possessor or proprietor, can be extended to every important class of new objects or ideas, and in fact creates a category not only in the Aristotelian sense but also in the sense given to this term by J. M. Baldwin (in "The Origin of a Thing and its Nature," *Psychological Review*, 1895). In English philosophy and language this notion of expectation is, however, familiar also to some predecessors of Bentham's, such as Shaftesbury, Hume and T. Reids. (I have found it, incidentally, even in Senecca.)

After Bentham, it was used by J. Mill, Baldwin and Ward. Hume employed it in his theory of causality, and Mill in his considerations on the uniformity of nature and his theory of probability.

In France, Lalande in his "Vocabulaire de la philosophie" (1926) merely states that it was Pierre Janet who first used the term, expectation, in his courses at the Collège de France, particularly in his "Analysis of Tendencies" (1907) and in "The Evolution of Memory and the Notion of Time" (1922), and that he gave it the following technical significance as regards the psychology of reaction:

"Expectation is quite a special activity which plays a considerable part in a great many psychological facts, especially in the construction of duration and time. In order to understand this activity it is necessary to recall the various stages of activating a tendency (the activation of a tendency), the principal ones being latency, erethism, wish, effort, consummation, triumph . . . Expectation consists in maintaining this tendency towards the stage of erethism, in inhibiting all kinds of derivation and disposition towards a rash consummation. This difficult work brings about tiredness and emotions, and gives occasion to many neurotic disorders."

In colloquial French the word "attente" (expectation) is used in the case of expectation based upon a promise. One *expects* a thing that one believes to be probable.

In Germany, the notion of expectation ("Erwartung") is found in Leibnitz in the form of cognition, and Kant conceived it as an empirical prevision or prescience of analogous cases. Among German psychologists and philosophers, Wundt regards expectation as a state in which our attention is projected not in relation to an actually present impression but rather in relation to a future impression or eventually in relation to a plurality of possible impressions (*Grdz. Ph. Psych.*, III, 346).

For Lazarus, expectation is a kind of predisposition, a "Bereitschaft zur Apperzeption" (*Leben der Seele*, II, 31).

According to Nahkowsky, to expect is to anticipate a future result "durch die denselben voraneilenden Reproduktionen" (*Das Gefühlsleben*, p. 96).

For Cornelius, each experience is part of a "Erwartungszusammenhang" (*Einl. in d. Philos.*, p. 152).

Stöher visualizes expectation as predisposition towards a movement—"Bewegungbereitschaft" (*Psych.*, p. 350).

(4) Among contemporary psychologists J. M. Baldwin has given to the notion of expectation the position due to it as a fundamental attitude of man's mind.

In the work referred to above, Baldwin distinguishes two fundamental attitudes that arise from the contemplation of an object—the retrospective attitude, and the prospective attitude. Baldwin

maintains that all mental contents play a double function in mental life. Hence two attitudes throughout man's progressive development.

In so far as we conform to acquired habits, we display a retrospective attitude; in so far as our mental content has not been entirely used up in pursuing these habits, it originates an expectant or prospective attitude. So that, Baldwin concludes, the ultimate conception of reality calls in the aid of a category capable of reconciling these two attitudes in one way or another.

According to Baldwin, *expectation* is the term by which this composite attitude towards reality should conveniently be called. Mill described it, in the case of the outside world, as a "permanent possibility of sensation." Put in more adequate words, it is the voluntary control of a memory series so as to reproduce reality, or truth, in its original aspect under the constraining pressure of the conditions governing the limitation of activity.

Thus, the present value of a thing consists largely in the future services we expect it to be able to render, and this is neither more or less than what it has performed in the past. So that the conception we form in our mind of a thing is made up both of its past career and of our expectation as regards its future career.

If Baldwin had been acquainted with Bentham's theory of property —for we presume he was not so—he would have readily agreed with Bentham, and consequently with the development we are giving to the latter's theory, i.e. we acquire a thing, and idea or social link, simply because we think it capable of a future career and in view of the interest we have in it.

Baldwin, however, did not take this step towards the phenomena of acquisition and conservation, though he realized its importance. He simply states, with regard to property, as follows: "Psychologically, the 'acquisition impulse, or instinct,' as it is called, seems to be very deeply rooted and to require recognition. Its existence is a refutation of the view which makes property rights conventional, or artificial. Its utility, from the general point of view, is so great—extending into all details of personal life from the earliest period—that its survival and evolution would seem to be simply a great sociological fact" (*Dic. of Ph. and Psych.*, p. 360).

(5) As to Bentham, he has not enquired deeply into the notion of expectation. Indeed, I do not know he chanced to hit upon it. Bentham is known to have experienced great difficulty in expressing his conceptions in words. He was unable to create an organized whole out of the mass of scattered notes accumulated haphazard in the course of his observations and reflections.

Is this a serious, an irretrievable defect? Be this as it may, the practical Bentham found a solution for giving expression to his fruitful ideas.

Bentham was undoubtedly weak in the art of demonstration, but he *did have ideas*, which after all is what really matters. In addition, he had a passion for travelling. He visited France, Switzerland, Germany, Russia. When in Switzerland, he made friends with E. Dumont, a member of the Representative Council of Geneva, who excelled in literary composition. Bentham gave him his notes, and thanks to Dumont these were eventually published under the title "Principes du Code Civil."[1]

(6) But let us revert to the notion of expectation in its relations with the acquisition of material or non-material things, intended for a more or less long and stable conservation. And let us submit it to a closer analysis.

It is generally considered that appropriation springs from a very deep-rooted tendency, but man does not appropriate things, nor does he acquire relationships, or ideas, without *discrimination*. Such is the case already with primitive men, and with the child. Suffice it to examine the pocket of a small boy. Here you will come across an already more or less organized system of acquisition. The interest of the boy presides over the selection of his little treasures. Protected by his parents, as a general rule, a child does not think about clothing or, except for sweetmeats, about food. Of these he is assured thanks to his guardians. His attention is directed towards things which have a meaning for him but which he does not easily find within reach, or which for one reason or another he is being systematically refused. It is considerations of this kind that are at work in his mind at the moment of his performing an act of acquisition with a view to future possession, and it is also from that moment that a link of expectation is established between the *self* and the object, now qualified as "mine." It is interest guided by the mechanism of attention that plays its rôle in the act of acquisition.

Now, once the thing has been acquired, thanks to one method of appropriation or another—the thing may have been seized, stolen, found, received, bought, etc.—it happens that its possession makes us regret the wish to have it.

"Nothing but the struggle pleases us—says Pascal—never the

[1] In Macaulay's *Works*, I came across the opinion expressed by the great English historian on the relation which existed between Mr. Bentham and M. Dumont. "The raw material," says Macaulay, "which Mr. Bentham furnished was most precious; but it was unmarketable. He was, assuredly, at once a great logician and a great rhetorician. But the effect of his logic was injured by a vicious arrangement and the effect of his rhetoric by a vicious style. His mind was vigorous, comprehensive, subtle, fertile of arguments, fertile of illustrations. But he spoke in an unknown tongue; and, that the congregation might be edified, it was necessary that some brother having the gift of interpretation should expound the invaluable jargon . . . M. Dumont was admirably qualified to supply what was wanting in Mr. Bentham" (Vol. V, p. 613).

victory . . . We never seek for things, we seek to find again *the* thing!"

Why, then, do we keep things nevertheless, and why do we conserve them once the need or the desire for them has been gratified?

The reason is that our needs, our desires, our passions, are rhythmical just like so many other things in nature (day and night, summer and winter, etc.). It is because from past experience we know that our needs come to life again, that they repeat themselves. It is because the things we covet in life (with the exception of air, for instance, which owing to its abundance is, we feel, worthless as an object for appropriation) are either limited in number or scattered about, or rare, or not to be found in nature, or in the world. It is for all these various reasons that acquisition, through the objects it aims at, goes beyond the present moment, and survives so to speak in the form of conservation of varying range and duration.

We keep a pen-knife not because we are tied up to it like to our body, but because we know from past experience that it may come in useful later on.

We keep up our relations and social links because we reckon to profit by them in the future.

We preserve our knowledge and ideas, often acquired only by dint of great exertion, because we know that they will be needed, that they will have to be resorted to for help.

In short, we expect future services from all these different things, which, however, does not prevent the links attaching these things to our consciousness from being in perpetual movement. They tighten or relax, according to the requirements of life.

(7) Our objects, our fellow-men, our animals, our knowledge, our ideas, our relations, all of them are for us so many bases of expectation, provided that we can, by our own means or otherwise, get possession of them or conserve them, whether with or without help from the protection of society, in its different forms (customs, laws, etc.).

But the origin of appropriation does not depend solely on the abundance or scarcity of things. It depends equally on the degree of man's foresight.

A study of the links of expectation relating mankind to things or other beings, reveals considerable differences as to the degree of foresight between individuals and also between whole races or peoples. Thus it has been possible to say that the yellow races live in the past, the black ones in the present, and the white in the future.

The faculty of projecting our *self* towards the future is the most important of all psychic functions from the point of view of biology, in the evolution of man towards the conquests of civilization.

The barometer of foresight, registering varying degrees in the exercise of the faculty of foresight among different individuals, or different peoples or races, reveals at the same time our different capacities in the struggle for existence, our capacities to persist and to survive.

"All that 'we have been'—remarks Blondel—has often only an aesthetic or historical interest for us; alone 'what we shall come to be' has an actual and living interest. In time, as in space, it is natural for us to look ahead. In order to look back, the mind, like the body, has—so to speak—to turn round, in a kind of forced flexion. The consciousness is, therefore, concerned above all with 'what I am going to do' and with 'what I am going to be'; in this respect the past is for the consciousness simply an enquiry office where it can get information on this point. It is for the morrow that we live" (p. 551).

The mother dreams of her child's future. She thinks herself justified in expecting a great deal of that future, far more when her child is still a baby than she will later on when he has grown up into adolescence, or attained his majority. The hard realities of existence will see to the extinction one by one of the mother's day-dreams—dreams sprung from the purest and most disinterested love. "What will he become?" asks the mother, bending lovingly over her baby's cradle. "Composer, President of the Republic, Pope, Bishop, Minister, Physician?" He persistently sings out of tune, maintains a peculiarly stubborn indifference to sounds and noises—he will be no Chopin. The Republic is swept away by a monarchist revolution—baby will not be President. Baby grows up into a young man. He becomes engaged to a girl—he cannot now become Pope or Bishop. Another Minister has been assassinated. It is becoming positively habitual—he must not take up such a dangerous career. He fails irremediably in his leaving examination—he won't become a Physician. But, on the other hand, he is very obedient, never discusses orders—he becomes a soldier. Willy-nilly, Mother resigns herself to her fate. She is appeased.

The career of men, as compared with that of women, being richer in events and possibilities, and consequently richer in expectations, parents generally attach greater importance to the birth of sons than to that of daughters.

Herbert Spencer, in his analysis of the sentiment of love, finds that the sentiment of possession plays a part in it. The two lovers *belong* to each other, they claim each other as a kind of property.

The question is sometimes discussed whether it is better to love or to be loved, a distinction which corresponds exactly to the Aristotelian one of active pleasure as opposed to passive pleasure. From the point of view of the relative strength of expectation, one may

reply that the point is rather *to love each other mutually*, for, in that case, love becomes two-sided instead of being one-sided. From the point of view of security in love, there exists then assurance and counter-assurance. Jealousy in love comes from lack of sufficient security.

Let us consider an example of disappointed expectation.

I have bought a tool because I expect it to be of use to me.

The possession of this tool is the basis of my expectation that I shall be able to make good use of it in case of need. This is part of my thought projected towards the future.

To my feeling of expectation, as regards my tool, is associated a more or less strong, and a more or less actual feeling of uneasiness, since I may lose my tool, or I may be deprived of it as a result of theft, etc., against which, on the other hand, I am protected by law, by the teaching of the Church, by an insurance policy, by the care of watchman, by the vigilance of my dog, etc. All these guarantees and precautions taken together constitute in my mind a certain degree of security, of which my tool is the object. But all of a sudden, the thief in connivance with *my* watchman succeeds in stealing my tool, in depriving me of it. Thus my legitimate expectation of my being able to make free use of it in case of need comes abruptly to an end.

In the rather clumsy terminology of Bentham, to steal is to commit a serious offence against the sentiment of legitimate expectation, justified by the actual possession of an object in a society that is organized from the point of view of security.

To be unwilling to give back, wholly or in part, an object lent is likewise an attack upon the sentiment of expectation, although apparently a less grave one than that outlined above.

Not to be able to do it, or to delay doing it, or to hesitate in doing it, is an attack of similar nature, but deserving less blame than those in the above instances.

Deceit, treachery, lack of loyalty, fidelity, etc., represent another series of cases where attack is made upon psychical facts, such as confidence or faith.

A child's confidence in its mother is absolute and deep. This confidence need not be safe-guarded or guaranteed either by the society or otherwise.

In saying "*mère*" (mother) the French child acknowledges in principle a state of parentship. In saying "*maman*" (*my* mother) it expresses more than that. It lays an affectionate stress upon it, it accentuates the existence of a link of expectation of quite an exceptional security. Its conscience, its instinct tell the child that it may rely upon its mother in all circumstances. The attachment of the mother for her child constitutes for the latter a firm foundation,

the rock on which it bases its expectation projected towards the future.

But this gratuitous confidence expressed in a serene (because strong) expectation may in certain circumstances also be of quite a general character, i.e. an entirely superficial expectation, without analysis, without reflexion, almost without consciousness.

(8) The French say "*mon*sieur," "*ma*dame," "*ma*demoiselle," without first measuring or weighing either the social status of the person thus addressed or the significance of the fact that they come upon him, or her, for the first and perhaps also for the last time.

One would say that thanks to a simple possessive prefix, added without too much discrimination to a "sieur" or to a "dame," they wish to extend the range of persons to whom they owe and pay a tribute of respect, thus including them in the great family of their respectable fellow-men or women, worthy of confidence. Incidentally, they also say "mon Dieu" (my God), although at times they use as well "bon Dieu" (good God).

In times of yore they favoured, in France, the expression "*mon*-seigneur" (my Lord). This was a somewhat more precise formula. While establishing the link with the ego, it took care to accentuate at the same time, the difference in status, dependance and hierarchy.

"*Mon* général," in the language of a sergeant addressing himself to a general, ultimately means to say that he regards himself as "belonging" to the former. But this same general, in addressing himself to the sergeant, does not call him "*mon* sergent," but simply "sergent." If he ever calls him "*mon* sergent" (my sergeant), this is when he talks about him to someone else and wishes to emphasize the fact that this particular sergeant serves under his orders. In this case, however, we are no longer in the field of general relationship among members of a determined society. We are rather in the domain of social relations in a special hierarchy.

(9) Is it possible to speak of expectation among animals? Does the animal world also evince the phenomena of attention, memory, abstract thinking, etc.?

The psychologists and sociologists are not as yet in agreement on this point, or else make reservations. It must be admitted that, on the whole, man is ill-placed for understanding exactly what in fact is going on in the brain of an animal. It is already very difficult to understand and to judge the mind of a child, or of a savage. And sometimes it is simply a mistake to try to interpret animal mind in terms of human mind.[1]

If the sentiment of the ego, the sentiment of personal identity,

[1] For more detailed development of possession in animal psychology, see my "Is there an Instinct of Possession?" (*The British Journal of Psychology*, July 1942).

the consciousness in short, does form the primary and fundamental *condition* of the phenomena of acquisition and of conservation, with which we have been dealing above, it is obvious that such highly evolved phenomena are not to be observed among living animals, whether gregarious or otherwise.

In order to trace the phenomena of *mine*, it is above all necessary that the *ego* be constituted.

Now, animals have consciousness, but they have no consciousness of their consciousness.

As regards the child, he at first talks of himself as of an object. At first he does not know himself as a subject. He has no clear consciousness of himself. His ego is built up gradually, and only when this process is achieved the notion of his ego crystallizes up in his consciousnesss.

(10) Contrary to Petrucci,[1] Bentham looks upon property subjectively, i.e. from insight. Writing a treatise on the "Principles of Civil Code," Bentham, curiously enough, does not make any striking contribution to the legal theory of property as commonly understood, but he puts forward a conception of high psychological interest. Unlike many others, he does not see in possession simply an exercise of physical power over an object but an exercise of psychical power as well, the power of foresight. It is true that we do not possess anything on the moon because its riches are out of our grasp. But it is equally true that man would not possess anything on the earth also if he were completely lacking in the power of expectation which is the psychological key for the explanation of the phenomena which are the object of this paper.

[1] According to the author of the *Natural Origins of Ownership* (Brussels, 1908) property is a natural fact responding to the necessities of adaptation and applicable also to the animal and vegetable worlds (pp. 1 and 3, Chapter VI, and conclusion, p. 219). Thus for Petrucci, every object must be considered as the true owner of the space it occupies.

DISCUSSION

MAN'S INNER CONDITION

A Study in Kierkegaard

An article on Kierkegaard appeared in Philosophy of July 1941, by Miss Dorothy Emmet, in which, among other topics, she deals with the twin subjects of Despair (*Fortvivelse*) and Dread (*Angest*), in that writer's philosophy. All that is involved in those two great concepts is, of course, beyond the scope of a short article. I desire only to sketch so much of them as will enable me to meet some of the points Miss Emmet raises.[1] The two principal books in which Kierkegaard expounds these concepts are, respectively, *Sygdommen til Døden* (Sickness unto Death) and *Begrebet Angest* (The Concept of Dread).[2] Chronologically, and indeed logically, they come in the reverse order. I have taken them the other way round only for my present purpose.

It is well known that Kierkegaard had a well-defined and progressive scheme of authorship, in which he unfolds his existential philosophy step by step. In approaching these books, therefore, it is necessary to take account of the point he had so far reached. In his two previous books, *Frygt og Bæven* (Fear and Trembling) and *Gjentagelsen* (Repetition),[3] he had come to the confines of a great subject—Sin. He had not entered upon that subject. He had discussed the possibility of a "teleological suspension of ethics," but only (as he himself elsewhere says) as "a transitory phase which again vanishes, or remains outside life as something altogether irregular."[4] "In *Fear and Trembling* sin was used incidentally to illustrate the nature of Abraham's sacrifice, but no further."[5] Now, however, he wants to take up the subject of Religion in a fuller sense, and since, as he says, "Sin is a decisive expression for the religious mode of existence,"[6] he must needs now discuss sin. Existential inwardness is, moreover, specifically described in the *Philosophical Fragments*; so that the way is open on all sides for advance.

What is Sin? Its place and meaning in man's psychological make-up are discussed in *Sickness*. Its history (in so far as it has one) and its origin are the theme of *Dread*. Taking the former first, it is clear that the only place in which sin exists is in the self, so Kierkegaard goes right back to the root question, what is the self?[7] It is spirit. "It is a relationship which relates itself to itself." Does the self create itself? No, it is created by another Power, and therefore is a "derived, constituted relationship," a relationship which relates itself to its own self, and in doing so, relates itself to this Power. Within this cycle of relationships, however, there is, in man's very nature, disrelationship; and this disrelationship is precisely what Kierkegaard calls, *Fortvivelse*, and which is usually translated Despair. It is, says Kierkegaard, "the 'sickness unto death' of which Christ spoke on the occasion when He

[1] For fuller treatment I would refer my readers to Chapters 4 and 5 of my *Kierkegaard Studies*, shortly to be published by the Lutterworth Press. Also to my article in *The Times Literary Supplement* of March 19, 1946.

[2] Samlede Værker, Vols. XI and IV respectively. Both are translated by Dr. Walter Lowrie (Oxford and Princeton respectively).

[3] Samlede Værker, Vol. III. Translated by Payne (Oxford) and Lowrie (Princeton).

[4] *Uvidenskabely Efterskrift* (S.V., VII, 254) = *Unscientific Postscript*, 239.

[5] Op. cit., S.V., VII, 240; *Postscript*, 255.

[6] Loc. cit.

[7] *Sickness*, 17 *et. seq.* = S,V,, XI, 143 *et seq.*

raised Lazarus from the dead."[1] The theologians call it sin. That all men should be in the grip of despair sounds a dreadful situation, and yet despair is, in a sense, man's glory; it is the very state which distinguishes him from the beasts. It implies that man is a free spiritual being, living *sub specie aeterni*; and the reason that no man is exempt from this sickness is because it is related to the eternal in him.

There is a kind of despair which is despair about something external to the self, such as misfortune, loss, or (to use Kierkegaard's own example) not being Caesar when one ambitiously wants to be Caesar. But this is not what Kierkegaard is primarily referring to in *Sickness*; though a glance at it will help us to see what Kierkegaard's *Fortvivelse* essentially is, as set forth in that book. "Despair is not," he says elsewhere,[2] "something which may happen to a man, like fortune or misfortune. Despair is a disrelationship in his inmost being—so far down, so deep, that neither fate nor events can reach it, but can only reveal the fact that it—was there. . . . Fortune and prosperity can conceal it; misfortune and adversity on the other hand, do not, as a man thinks, make him desperate, but only reveal the fact that he—was desperate. In so far as we speak otherwise, it is because we carelessly confuse the highest concepts. That which really makes a man despair is not misfortune, but the fact that he lacks the eternal. Despair is to lack the eternal."

It is only putting the matter a different way, when Kierkegaard says, in *Sickness*, that in the very fact that a man despairs of *something*, he is proved to be really despairing of himself. Because he did not become Caesar, or retain what he lost, he cannot bear to accept himself as he is; cannot bear to see himself *sub specie aeterni*, i.e. without any self-deception; cannot, in short, endure to be himself. And this puts him at odds, not only with eternity, but with the Power which constituted him as it did. He may even, in this now open despair, want to be rid of that Power. But such a wish never gets rid of the disrelationship; in fact it only emphasizes it, and embitters the soul. In other words, the disease "sickness unto death" is only made worse.[3]

Behind this concept *Fortvivelse* or Despair lies another. Despair is a sickness in the self or spirit, as we have seen. Just as a man may have a presentiment of bodily sickness, so the spirit may have a presentiment of this spiritual sickness, and this presentiment Kierkegaard calls *Angest* (modern *Angst*) or Dread. This he deals with in the book *The Concept of Dread*.[4] Readers of Kierkegaard are aware that "dread" is an inadequate translation, because, as Lowrie says,[5] "it fails to indicate the uncanny apprehension of some evil impending, something not purely present, but to come." It is a presentiment and premonition. About what? About nothing; nothing, that is, that lies outside ourselves; nothing that is as yet potentiated within ourselves either. This nothingness, however, is no metaphysical concept. It has reference to man's psychological state, and to that alone. It points to an inner condition which has vital practical consequences. It deeply affects a man's personal *Existens* (in Kierkegaard's sense), and indeed his eternal salvation to boot. Everyone therefore has an interest in the subject which is by no means a metaphysical interest. Indeed, it is the passion of this interest which is the rock "upon which metaphysics founders," as Kierkegaard elsewhere says.[6]

[1] John xi. 4. [2] *Works of Love*, 34 = *Kjerlighedens Gjerninger*. S.V., IX, 53.

[3] To epitomize a great author is always difficult, and sometimes shameful; the more so the greater the author. A man may well hesitate therefore to epitomize Kierkegaard, of whom Reinhold Niebuhr writes (*Nature and Destiny of Man*, p. 195): "Kierkegaard's analysis of the relation of anxiety to sin is the profoundest in Christian thought."

[4] Just as *Angst* lies behind *Fortvivelse*, so the subject matter of *The Concept of Dread* lies behind that of *Sickness unto Death*. The latter deals with the despair which is sin, the former with Original Sin, which lies behind, and is the history of, actual sin.

[5] *Kierkegaard*, p. 73. [6] *Repetition*, p. 34 (*Gjentagelsen*, S.V., II, 212).

When, therefore, Miss Dorothy Emmet, in the article above referred to in PHILOSOPHY, says (and she is apparently quoting Heidegger's opinion), "*Angst* is the fear of metaphysical insecurity," she is, I think, on the wrong track, and Heidegger too. There is, it is true, a certain sense in which Miss Emmet's further words from the same context, "the individual is poised above absolute nothingness," may be regarded as a correct expression of another part of Kierkegaard's teaching. When, for example, a man has "ventured far out" (as Kierkegaard puts it) into the unknown and fathomless seas of faith, he may (speaking in a picture) be said to be poised over nothing; though in that case the nothing is everything. But that is not the nothingness of dread, and such an idea is as irrelevant here, as Miss Emmet's metaphysical Nothing.

Equally irrelevant is Miss Emmet's description of "absolute Nothing" as "quite distinct from logical negation, which, as every reader of Plato's *Sophist* knows, is a form of determination." Kierkegaard's "nothing", it is true, is distinct from logical negation also. But Plato is discussing not-being (*τὸ μὴ ὄν*) as theory *in abstracto*, much as Hegel discusses *Seyn*. Kierkegaard, on the contrary, is speaking existentially and *in concreto*, describing an actual psychological state of every man. Indeed, Miss Emmet's reference to the *Sophist* suggests, in itself, that she is approaching the matter from a wrong angle; and I would respectfully and kindly commend both to her and Heidegger the words of Parmenides, quoted in the *Sophist*:—

> *οὐ γὰρ μή ποτε τοῦτο δαῆς, φησίν εἶναι μὴ ἐόντα*
> *ἀλλὰ σὺ τῆσδ' ἀφ' ὁδοῦ διζήμενος εἶργε νόημα*[1]

Man finds himself (so I condense the essence of Kierkegaard's position) possessed of spiritual freedom; a freedom which, while it places him on a high pinnacle far above the animals,[2] yet makes him, by its very height, ever in danger of falling into the dismal abyss where he loses both his freedom and himself. Freedom, therefore (without which such a fall could not happen), while it is man's glory and pride, fills him with dread (*Angst*). He is well aware how immanent the possibility of a fall may be, just because he knows that, already, within his own soul, there exists the disrelationship which Kierkegaard calls despair; a disrelationship both of the self to its own self, and of the self to the Power that constituted it. And the self is only cured of this sickness, transferred to the realm of freedom and health, and given back its *redintegratio in statum pristinum* when, "by relating itself to its own self, and by willing to be itself, the self is grounded transparently in the Power which constituted it."[3]

How wide of the mark then is Miss Emmet when, in the same article I am quoting, she tells of an experience of her own by which she seeks to prove, not that she is in dread of losing her spiritual freedom and so potentiating despair within herself, but to prove that, in this said experience, she found herself using the word Nothing in the sense of a "logical distinction." She is, moreover, wide of the mark, as regards Kierkegaard's present meaning, when she says "Metaphysics starts, according to Heidegger, from the realization (sc. that a man has a 'radical insecurity of being'), and asks why anything should be at all, rather than Nothing. For if there were only infinite possibilities of the Nothing, the self could not exist." Excellent metaphysical speculations, no doubt, but nothing to do with Kierkegaard's meaning in connection with Dread; as irrelevant as Mr. Joseph's quite true statement

[1] *Sophist*, 237.
[2] As we saw earlier that Despair places man above the beasts.
[3] *Sickness*, 19, 216 (*Sygdomnen*, S.V., XI, 144, 272).

for discussion in a Greats paper (also quoted by Miss Emmet): "In a world where everything were possible, nothing would be probable."

Kierkegaard's chief concern is with personal freedom and not metaphysics. Necessity, in the grip of which the speculative philosophy lay bound, Kierkegaard must needs repudiate; for Dread and Despair, in his sense, imply freedom, and indeed owe their existence to the possibility of a misuse of freedom. At bottom it is the nothingness of mere possibility that causes Dread. In the *Physics*, Aristotle defines κίνησις as a movement from possibility to actuality, actuality being higher than possibility. In the case of Despair this is not so. Actual despair is in a lower scale than the possibility of despair. Indeed the latter is a sign, not of debasement, but of exaltation. To be rid of Despair, one must, says Kierkegaard, choose it. That is, recognize it, accept it as a fact, and then, by an act of one's own free will, make the leap of faith which enables a man to overcome it.

All this does not mean that Kierkegaard holds the Pelagian view about *liberum arbitrium*. In *The Concept of Dread* he speaks of *libertas indifferentiae* as "an absurdity of thought," a "something which does not exist." There is, he argues, no freedom unless one chooses the good and not the evil, and this is to choose oneself. To choose the evil is to be not-free, and guilty. Hence freedom is not, as with Kant and others, the antithesis of necessity, but of guilt.

T. H. Croxall.

NEW BOOKS

A History of Western Philosophy, and its Connection with political and social Circumstances from the earliest Times to the present Day. By BERTRAND RUSSELL. Pp. xxiii, 895. Simon and Schuster. New York.

Even if I possessed (which I do not) the requisite knowledge of the various philosophers treated by Lord Russell and of the general historical background which he describes, it would be quite impossible to give in a reasonably short space a detailed criticism of this immensely long book. I shall confine myself to the following two points. I shall give a brief sketch of the ground covered, and then I shall give an account of the plan which Lord Russell says that he had in mind in writing the book and an estimate of his success in carrying out that plan.

(1) *The ground covered.* The book begins with a short Introduction, in which the author gives a preliminary account of what he means by "philosophy," followed by a sketch of European history from 600 B.C. to the present day. This ends with the statement that social cohesion is a necessity, that it has never yet been maintained by merely rational arguments, and that it remains to be seen whether there can be a social order not based on irrational dogma and not involving more than the irreducible minimum of constraints on the individual. The latter is the ideal of liberalism.

This is followed by a chapter on the rise of Greek civilization. Then come chapters on the Milesian School, on Pythagoras, on Heraklitus, on Parmenides, and on Empedocles. Great importance is attached to Pythagoras as the first to introduce a mixture of mathematics and mysticism into European thought. Parmenides is said to be the first to base metaphysical principles on the logical analysis of propositions. Russell ascribes the beginnings of the notion of persistent substances to attempts to answer Heraklitus without going to the extreme advocated by Parmenides.

A short chapter on Athens in relation to culture intervenes between those just mentioned and chapters on Anaxagoras, on the Atomists, and on Protagoras. Russell thinks that Greek philosophy begins to deteriorate after Democritus by becoming too anthropocentric.

So we pass to a chapter on Socrates, of whom Russell remarks later in the book: "As a man we may believe him admitted to the communion of saints; but as a philosopher he needs a long residence in a scientific purgatory." It is alleged that there is ". . . . something smug and unctuous about him, which reminds one of a bad type of cleric." (I am tempted to adapt the retort which Lincoln made to the persons who told him that General Grant drank too much whisky.)

After a chapter on the influence of Sparta and of myths about Sparta, a city which Lord Russell dislikes, come six chapters on various aspects of the philosophy of Plato, a person whom he dislikes still more. The antipathy seems to be based primarily on political grounds, and secondarily (I suspect), on annoyance with the almost uninterrupted stream of praise which Plato has received from scholars throughout the ages. The chapters in question deal in turn with the sources of Plato's opinions, with his Utopia, with his theory of Ideas, with his theory of Immortality, with his Cosmogony, and with his Theory of Knowledge. Among the *obiter dicta* I may mention the statement that "Plato was hardly ever intellectually honest" (p. 78). After this one is a little surprised to find the statement on p. 127 that the *Parmenides*

"contains one of the most remarkable cases in history of self-criticism by a philosopher." I suppose this must have been one of Plato's rare lapses into intellectual honesty.

There follow five chapters on various topics in Aristotle's philosophy. Lord Russell dislikes Aristotle if possible more than Plato, but for different reasons. For Plato he has a kind of reluctant admiration; for Aristotle, as revealed in his Ethics, and his Politics, he has a hearty contempt. "To a man with any depth of feeling it" (the *Nicomachean Ethics*) "cannot but be repulsive" (p. 173). "I do not agree with Plato" (on the state) "but, if anything could make me do so, it would be Aristotle's arguments against him" (p. 189). Apart from these emotional antipathies, Russell's main objection to Aristotle is that certain of his logical and metaphysical theories, which Russell regards as false or inadequate, had a harmful influence on logic and metaphysics when Aristotle was made into a kind of philosophical Pope by St. Thomas. The topics treated in these five chapters are Aristotle's Metaphysics, his Ethics, his Politics, his Logic, and his Physics.

The next chapter deals with early Greek Mathematics and Astronomy. It pays a high tribute to the intellectual greatness of Euclid's *Elements*; and it asserts that the merit of the Copernican hypothesis (originally suggested by Aristarchus of Samos), as compared with the theory of epicycles developed by Hipparchus and perfected by Ptolemy, was not its *truth* but its greater simplicity. (This of course presupposes that the relational theory of motion can be accepted as completely satisfactory.)

There follows a purely historical chapter on the Hellenistic world, which forms an introduction to chapters on Cynics and Sceptics, on the Epicureans, and on Stoicism. As regards Epicureanism, Russell remarks that it was "a valetudinarian philosophy, designed to suit a world in which adventurous happiness had become scarcely possible." There are some good remarks on the ethical doctrines of the Stoics. "There is . . . an element of sour grapes in Stoicism. We can't be happy, but we can be good; let us therefore pretend that, so long as we are good, it doesn't matter being unhappy." (p. 269). Again, Russell points out that, since modern drugs and modern methods of "third degree," as practised by the late German and the present Russian government, can reduce any man to docility, "the will is . . . only independent of the tyrant so long as the tyrant is unscientific."

Between the last of these chapters and one on Plotinus, which concludes the account of Ancient Philosophy, comes a purely historical chapter on the Roman Empire in relation to Culture. Russell likes Plotinus and gives a very sympathetic account of his philosophy. "Among men who have been unhappy in a mundane sense, but resolutely determined to find a higher happiness in the world of theory, Plotinus holds a very high place . . . . Like Spinoza, he has a certain kind of moral purity which is very impressive." I think it ought to strike Russell as odd that a man like Plotinus, who was steeped in Plato's works, should have had such a reverence for Plato if the latter were what Russell represents him as being.

The second Book is concerned with what Russell calls "Catholic Philosophy," i.e., philosophy in the period between St. Augustine and the Renaissance. It is largely concerned with general history of Europe. The first chapter deals with the religious development of the Jews; the second with Christianity during the first four centuries after Christ; and the third with three great Doctors of the Western Church, St. Ambrose, St. Jerome, and St. Augustine. "Few men," says Russell, "have surpassed these three in influence on the course of history" (p. 335). The fourth chapter is devoted to a detailed account of St. Augustine's

theology and philosophy. Russell rates St. Augustine very high as a pure philosopher. Though he disagrees with St. Augustine's theory of time, which is in essence that time is subjective and therefore depends on created beings, he considers it to be a brilliant philosophical achievement. He points out that St. Augustine anticipated both Descartes' *Cogito ergo sum* and his answer to Gassendi's alternative argument *Ambulo ergo sum*. Russell gives an interesting summary of the argument of *The City of God*. He says that both St. Augustine and Karl Marx took over the Jewish theory of world-history, past and future. The former adapted it to Christianity, and the latter to Socialism. Russell provides an amusing dictionary of equivalents between the main categories of Jewish and Communist eschatology.

Next come three chapters which are mainly devoted to general history. The first of these describes the main events and personalities of the fifth and sixth centuries. The most important philosophic figure is Boethius, of whom Lord Russell says "he would have been remarkable in any age, in the age in which he lived he is utterly amazing" (p. 373). The next chapter is devoted to Saint Benedict and Gregory the Great, and the next to the Papacy in the Dark Ages. Lord Russell thinks that civilization in Western Europe reached its nadir about A.D. 1,000, and that from that time there began an upward movement which lasted until 1914. But he points out that it is easy for us to over-estimate the importance of Western Europe, and that during our dark ages there flourished the brilliant T'ang dynasty in China and the brilliant Islamic civilization. He describes the work of the chief Islamic philosophers in a later chapter on Mohammedan culture and philosophy. He will not admit that the Arabs were original thinkers, except in mathematics and chemistry. The most that he will allow to them (and to the Byzantines) is that they "preserved the apparatus of civilization" while the West was still barbarous.

The chapter on Benedict and Gregory is followed by one about the life and philosophy of the Irish scholar John Eriugena. Then follow a chapter on Ecclesiastical Reform in the eleventh century and the chapter already mentioned on Mohammedan culture. This brings us to one on the twelfth century and the beginnings of Scholasticism, which contains an account of Abelard and St. Bernard. The next deals with the thirteenth century, which Lord Russell regards as the culmination of the Middle Ages. He describes Innocent III as "the first *great* Pope in whom there was no element of sanctity" (p. 443); he remarks that the Church was saved in this century from the fate which befell it in the sixteenth largely by the mendicant orders founded by St. Francis and St. Dominic; and he reflects that "if Satan existed the future of the order founded by St. Francis would afford him the most exquisite gratification." (p. 450).

The decks are now cleared for a chapter on St. Thomas Aquinas, who is described as "a special pleader" (p. 463), and whose temperament is said to have been "ratiocinative rather than mystical" (p. 460). His doctrines are expounded and criticized in a thoroughly unsympathetic and external way. It is certain that St. Thomas had mystical experiences and that he attached immense importance to them. A philosopher who defended (as St. Thomas does in his tract *De Aeternitate Mundi*) on philosophic grounds the possibility that the world has no beginning in time against those who claimed to disprove it, although he held on the basis of the scriptures that this possibility is contrary to fact, is a good deal more than a special pleader.

The next chapter describes the views of the great Franciscan schoolmen, Roger Bacon, Duns Scotus, and William of Occam. Lord Russell thinks that

Roger Bacon, who was "encyclopaedic . . . but unsystematic" and who quoted a wealth of authorities in support of his opinion that one should not rely on authority, has been much over-rated in modern times. He regards William of Occam as the greatest scholastic after St. Thomas and as the last of the great scholastics, and he gives a critical account of Occam's views in metaphysics (where he was *not* a nominalist) and in logic (where he *was* one).

This book ends with a chapter on the Eclipse of the Papacy, and one has a feeling that Lord Russell must have breathed a sigh of relief to be at last out of the enchanted wood of the Middle Ages, in which both by temperament and training he is (to quote Housman) "a stranger and afraid, in a world he never made."

Book III, which treats of Modern Philosophy, is divided into two parts. The first covers the period from the Renaissance up to and including Hume; the second that from Hume to the present day. It opens with a chapter on the general characteristics of the whole period. Lord Russell thinks that modern philosophy has been in the main *subjective*, and that the "extreme of subjectivism is a form of madness." (p. 494). Plain men have become more and more influenced and impressed by the success of science as a *practical technique*, but philosophers have only lately been influenced by this aspect of it and have so far mainly considered science as a theoretical doctrine and method. The success of science as a technique, dependent on a closely-knit social organization, has led to a feeling of unlimited power coupled with a loss of all sense of direction. "It assures men that they can perform wonders, but does not tell them what wonders to perform . . . . Ends are no longer considered, only the skilfulness of the process is valued. This also is a form of madness" (p. 494).

The second chapter deals with the Italian Renaissance. It raises the question: "How much murder and anarchy are we prepared to endure for the sake of great achievements, such as those of the Renaissance?"; and answers: "In the past a good deal, in our own times much less"; but realizes that there is an unsolved problem here.

The third chapter contains a fair and sympathetic account of Machiavelli and his political theories. "The world has become more like that of Machiavelli than it was, and the modern man who hopes to refute his philosophy must think more deeply than seemed necessary in the nineteenth century" (p. 511).

The next three chapters deal respectively with Erasmus and More, the Reformation and the Counter-reformation, and the Rise of Science. The first of these contains an account of More's Utopia, which concludes with a remark on the "intolerable dullness" which Lord Russell thinks would characterize life in it or in any other planned society, real or imaginary (p. 522).

At the beginning of the chapter on the Rise of Modern Science Lord Russell says that "the modern world, so far as mental outlook is concerned, begins in the seventeenth century." The first changes were the ejection of animism from natural science; the rejection of the notion that man is the centre of the universe and that teleological explanations are in place in science; and, notwithstanding this, a growth of human pride in human achievements. Later changes were the rejection of the notion of force as the cause of motion and the abandonment of the absolute theory of space, time, and motion.

The seventh chapter is concerned with Francis Bacon, who is described as "morally . . . an average man, no better and no worse than the bulk of his contemporaries" (p. 542). In discussing Bacon's logic of induction Lord Russell says that the evidence for *ultimate* generalizations remains induction by simple enumeration, and that for this no satisfactory defence exists.

I think that this opinion (whether it be correct or incorrect) tends to make Russell unappreciative of Bacon's great merit as the first person who saw and emphasized the importance of negative instances and exclusion in scientific reasoning.

The next chapter treats of Hobbes's *Leviathan*. Russell remarks that on the whole the power of the state has grown since Hobbes's time even more than Hobbes would have desired. It is true that the state is the only alternative to anarchy; but there are other evils to be guarded against, e.g., the injustice and the ossification which inevitably follow if the government is omnipotent and need fear no resistance. Nevertheless "Hobbes is the first really modern writer on political theory. Where he is wrong it is from over-simplification" (p. 556). He needs to be supplemented by a theory of conflicts between classes within each state, and a theory of international relations.

The next three chapters treat in order the three great Continental philosophers, Descartes, Spinoza, and Leibniz, who occupy the period from the late sixteenth to the early eighteenth century. Lord Russell is temperamentally very sympathetic to Spinoza and very antipathetic to Leibniz, whilst he does not seem to have any strong emotional reaction towards Descartes. The consequence is that, when the moral characters of these philosophers come under review, Leibniz is extravagantly condemned, Spinoza as extravagantly praised, and Descartes judged with fairness and common-sense.

Russell remarks that "although Spinoza's whole philosophy is dominated by the idea of God, the orthodox accused him of atheism" (p. 569). It seems to me that the orthodox were perfectly correct. The whole of Spinoza's writings are indeed filled with the *word* "God," and I have no doubt that Spinoza quite honestly felt towards the object which he called by that name emotions something like those which genuine theists feel towards God in the ordinary sense. But, if we look behind venerable names and edifying phrases used in extremely Pickwickian senses and if we discount the emotions which they are liable to call up through association, I think we shall find that Spinoza's system is a form of atheism which any theist who is not completely muddle-headed must reject without hesitation.

Lord Russell regards the greater part of Spinoza's metaphysics as false or groundless; has a great admiration for his ethical attitude and maxims; and therefore discusses carefully how far the latter can be logically separated from the former and how far they can be accepted on their own merits.

Leibniz is admitted by Lord Russell to be "one of the supreme intellects of all time," but it is alleged that "as a human being he was not admirable" (p. 581). He is asserted to have "lied about the extent of his personal acquaintance with Spinoza (p.569), and to have had an esoteric system which he developed in his correspondence with Arnauld and suppressed for discreditable reasons. No adequate evidence is produced to enable one to test the first accusation, and the second appears to me to be a mare's nest. He is said to have been "somewhat mean about money," on the ground that, when any young lady at the Hanoverian court married, he used to give her a wedding-present consisting of useful maxims, ending with the advice not to give up washing now that she had secured a husband. As weddings among young ladies-in-waiting must have been pretty frequent, and as Leibniz's salary as librarian was probably quite small and there is no reason to think that he had substantial private means, the conclusion derives little support from the premisses. The advice may not have been tactful, but no one who has read in contemporary memoirs about the personal habits of ladies of rank and fashion in the seventeenth and eighteenth centuries can call it superfluous.

When Lord Russell has exhausted these trivialities he gets down to a serious and valuable examination of Leibniz's philosophic doctrines. He thinks that the classical arguments for the existence of God have been better stated by Leibniz than by any other philosopher, and so he examines them carefully in this place.

A chapter on Philosophical Liberalism follows, and this leads on to three chapters on Locke, one on his Theory of Knowledge, a second on his Political Philosophy, and a third on his Influence. From the general chapter I will quote the following remark: "A philosophy developed in a politically and economically advanced country, where it is little more than a clarification . . . of prevalent opinion, may become elsewhere a source of revolutionary ardour and even of actual revolution" (p. 601). Lord Russell considers that Locke's philosophy illustrates the fact that "the most fruitful philosophies have contained glaring inconsistencies, but for that reason have been partially true" (p. 613).

Chapter Sixteen is devoted to Berkeley. It begins badly by misquoting Ronald Knox's celebrated limerick, and stating that Berkeley "in later life abandoned philosophy for tar-water," as if that exhausted the subject-matter of the *Siris*. After that Lord Russell gets down to business and seriously discusses a part (though only a part) of Berkeley's doctrine, viz., the contents of the first and the beginning of the second of the *Dialogues between Hylas and Philonous*. What comes later he dismisses as "of minor importance" (p. 648). The discussion is elaborate and interesting, and Lord Russell formulates some of his own views in the course of it.

The next chapter is concerned with the doctrines of Book I of Hume's *Treatise of Human Nature*. The result of Lord Russell's examination of Hume's arguments about causation is this. He thinks that they prove that *either* science is impossible *or* induction rests on an independent logical principle which is incapable of being inferred either from experience or from other logical principles. This, he holds, makes a serious hole in pure empiricism. (Lord Russell has never accepted the fashionable and comfortable view that the "problem" of the justification of induction is a pseudo-problem to be *re*solved and not a problem to be *solved*). He remarks that "the growth of unreason throughout the nineteenth century is a natural sequel to Hume's destruction of empiricism" (p. 673). This may be true if it means only that a consistent Humean would have no ground for preferring procedures which are commonly counted as "rational" to others which are commonly counted as "irrational." But I should think that it is certainly false if it is intended as a statement about the actual causation of a prevalent attitude of mind.

The chapter on Hume concludes Part I of Book III. The second part is largely concerned with what Lord Russell calls the "Romantic Movement" and its developments in philosophy and politics down to the present day. It opens with a general account of that movement. Lord Russell holds that it set out to free the individual from social restrictions, many of which were antiquated and oppressive. But it was difficult to keep such a movement from developing into a pretext for excesses of anti-social egoism.

The next chapter deals with Rousseau and his contributions to theology and political theory. I must confess that I share the dislike which Lord Russell obviously feels for the personality and the theories of Rousseau. I heartily agree with Russell's remark that "the rejection of reason in favour of the heart" (in theology) "was not an advance. . . . No-one thought of this device so long as reason appeared to be on the side of religious belief. . . . If I had to choose between St. Thomas and Rousseau I should unhesitatingly choose the saint" (p. 693–94).

The chapter on Kant, which follows, seems to me to be the worst in the book. It is inadequate and inaccurate. The only part of the *Critique of Pure Reason* which is seriously considered is the doctrine of space and time in the *Aesthetic*. I should have thought it obvious that far the most important and original part of the first Critique is the *Analytic*, which is not touched upon. It is stated on p. 711 that Kant "gives as an illustration of the working of the categorical imperative that it is wrong to borrow money, because, if we all tried to do so, there would be no money left to borrow." To the best of my belief Kant did not hold that it is wrong to borrow money, and never used the absurd argument ascribed to him above. Lord Russell must have been embroidering on a vague memory of an argument by which Kant tries to prove that it is wrong to borrow money on promise of repayment which one knows one will not be able to make. The plain fact is that Lord Russell thinks, rightly or wrongly, that Kant is not a great philosopher and that his influence has been unfortunate, and that he feels himself dispensed from taking the trouble to expound him adequately and accurately. I am sure that Kant was a great philosopher; but that is neither here nor there. What I complain of is that no-one whose knowledge of Kant was confined to this chapter would be able to understand why Kant has been *thought* by many highly competent persons to be one of the greatest of European philosophers.

Between the chapter on Kant and that on Hegel is sandwiched one on Currents of Thought in the Nineteenth Century. It is argued that the conviction that man is continuous with the irrational animals has raised difficulties for the egalitarians, and that the growth of industrialism and machinery has intoxicated certain men with a sense of power over nature and over other men whom they can use as raw material for propaganda.

Two chapters deal with developments of different aspects of Kant's philosophy by Hegel and by Schopenhauer. The chapter on Hegel contains a clear, and it seems to me a fair, critical account of his main views. In the chapter on Schopenhauer Lord Russell ascribes to him the opinion that the cosmic will is *wicked*. I should have thought that *stupid* would have been a more correct description of it on Schopenhauer's view.

The reader may be surprised to find a chapter on Lord Bryon between the two last mentioned. Lord Russell introduces it on the ground that "among those whose importance is greater than it seemed Byron deserves a high place" as the typical "aristocratic rebel" who eventually influences large sections of society which are by no means aristocratic. Byron has of course always been treated much more seriously on the Continent than in England. The chapter has some acute psychological reflexions and makes very good reading.

This is followed by a chapter on Nietzsche, which seems to me to be admirable. Naturally Lord Russell dislikes him and nearly all that he stood for. But this does not prevent him from treating Nietzsche's views with fairness and comprehension. He admits that Nietzsche admired the capacity to *endure*, as well as to inflict, pain; that he did not worship the state, but the *heroic individual*; that he was *not* a nationalist, and in particular was no great admirer of the *German* nation; and that he was not in principle anti-semitic, though he thought (and who shall say him nay?) that Germany had as many Jews as it could comfortably digest. He admits further that "Nietzsche's prophecies have, so far, proved more nearly right than those of liberals or socialists" (pp. 766–67). Lord Russell says that he would like to refute Nietzsche's ethics, which is profoundly distasteful to him, and this leads to an interesting general discussion of the senses in which an ethical system is open to refutation. The chapter concludes with an imaginary argument between Nietzsche and

Buddha before the judgment-seat of God, in which Russell puts into Buddhas mouth some sentiments which I think that he, as a convinced and radical pessimist, would have unhesitatingly repudiated as pills to cure an earthquake.

A chapter follows, by way of extreme contrast, on the Utilitarians in general and in particular on Bentham and the dark Satanic Mills (James and John Stuart). Lord Russell says that in Bentham's system "belief in equality is deduced from the calculus of pleasures and pains" (p. 776). This is surely a mistake. Bentham asserted the principle "Everyone to count for one and no-one for more than one" as an axiom; he did not profess to prove that a distribution in accordance with this principle would have greater "fecundity" than distribution in accordance with any other, and recommend the principle on that ground.

The next chapter is concerned with Karl Marx. Russell distinguishes three strands in him. He was a successor of the Philosophical Radicals in opposition to romanticism, a reviver of a certain form of materialism, and a system-builder in the Hegelian tradition. (I think we might add that he shared the taste of his race for apocalypses.) In discussing Marx, Russell explains to what extent he himself does and does not accept the "materialist conception of history" as applied to the origin of philosophical theories. He thinks that Marx's main defects as a philosopher were that he was too anthropocentric and that he believed in a universal law of progress.

There follows a very curious chapter on Bergson. It consists mainly of a reprint of an article which Russell published in the *Monist* in 1912. Now it so happens that the main criticisms on Bergson in that article are based on distinctions (e.g., that between act of cognizing and object cognized) which Russell has long since rejected and which he praises Wm. James in the next chapter for having taught him to reject. Certainly Jupiter sometimes nods!

In the chapter on Wm. James, Lord Russell accepts and welcomes the doctrine of the essay *Does Consciousness Exist?* though he gives reasons why the "neutral stuff" should not be described as "consciousness." But he severely criticizes both the transitional doctrine of *The Will to Believe* and the full-blown pragmatic notion of truth to which it was a half-way house.

This brings us to Professor Dewey, who has the great distinction of being the only living philosopher to whom Lord Russell devotes a chapter. Russell thinks that Dewey's most important contribution to philosophy is his instrumental theory of truth. He states and criticizes this, and in doing so gives a brief sketch of his own present view of the nature of truth. He insists that the instrumental theory is one more instance of the defect of anthropocentrism which he has pointed out in so many of the more modern philosophers, "a further step . . . on the road to a certain kind of madness" (p. 828).

The book ends with a short chapter on the Philosophy of Logical Analysis, a subject to which Lord Russell has himself made more important contributions than any one other living writer.

(2) *The Plan of the Book.* The professed object of the book is "to exhibit philosophy . . . as both an effect and a cause of the character of the various communities in which different systems flourished" (p. ix). In accordance with this plan Lord Russell devotes much space to general history in order to display the social and political background of the philosophers whom he discusses. He remarks that, "when an intelligent man expresses a view which seems to us obviously absurd . . . we should try to understand how it ever came to *seem* true. This . . . enlarges the scope of our thinking and helps us to realize how foolish many of our own cherished prejudices will seem to an age which has a different temper of mind" (p. 39). These general considerations are developed

in rather more detail in the passages in which Lord Russell discusses the "materialist conception of history" as applied to philosophical theories. His view may be summarized as follows. What is called "philosophy" consists of two different elements, viz., (i) questions which are scientific or logical and can be dealt with by methods on which all competent experts are agreed, and (ii) questions of very great practical interest, e.g., human survival of bodily death, where there is no conclusive evidence either way and no real prospect of getting any, but where it is very hard to remain sceptically detached. To the first class of questions social causation is almost irrelevant, to the second it is highly relevant. The prevalent opinions of any age and country on questions of the second kind do tend to reflect certain presuppositions which are embodied in its social and political institutions. But even here *political*, as well as economic, circumstances must be taken into account; and the former cannot be reduced to the latter. A vitally important motive in human affairs is the desire to get, to keep, and to exercise *power over others*. Although wealth is one source of power, it is not the only one; and although power is a necessary condition for acquiring or preserving wealth, it is not desired only as a means to those ends.

How far does Lord Russell keep to his plan? One would expect two things. (1) That the views of each philosopher on questions which are "logical or scientific" would be discussed without reference to his social and political background, but with due allowance for the developments of logical, mathematical, and scientific technique since his time. On the whole this is what Lord Russell does, though I think he makes quite insufficient allowances, particularly in the cases of Plato and Aristotle. (2) That each philosopher's other views would be interpreted and criticized sympathetically with explicit reference to his social and political background, and that a serious attempt would be made to enable the reader to understand how his opinions "ever came to *seem* true." Here it seems to me that Lord Russell has seldom succeeded and has often not seriously tried. Sometimes the temptation to "score off" an ancient or mediaeval thinker by appealing to the tacitly assumed and uncriticized liberal-democratic prejudices of contemporary England and America has proved too strong for Lord Russell's historical conscience. I have the impression that the parts of the book which deal with general history and the parts which deal with the views of particular thinkers lie side-by-side or in successive layers and are not inter-connected in the intimate way which the plan demands.

I think that the almost complete lack of references is a serious defect in the book, though I can see that their presence would have greatly enlarged a volume which is already extremely bulky. The fact is that Lord Russell makes a number of very startling statements and a still greater number of innuendos; that we are provided with no means of checking these, of discovering their context, or of estimating the value of the authorities from whose writings they are drawn; and that the few cases (e.g., the account of Kant's philosophy) which I can check do not encourage me to accept with implicit confidence the very many which I cannot.

C. D. Broad.

On Liberty, and Considerations on Representative Government. By J. S. Mill, ed. with an introduction by R. B. McCallum (Blackwell, Oxford, 1946. Pp. lix. + 324. Price 8s. 6d.)

It is very desirable that attention should at this time again be called to what is the classical, or at least by far the best-known, exposition of the

principles on which British "democracy" is based, and the edition provided serves its purpose very well, though I hope that the cheaper *Everyman* edition will soon be again also available. There is, however, very little for a reviewer to say. The editing of a recent work does not of course present the problems of a classical text, and the scope for the editor's ability to display itself is almost confined to the introduction. The latter is, however, an excellent piece of work, clear, comprehensive, well written and thoughtful. One interesting point brought out is that Mill is more conservative than is usually supposed, e.g. he "has eliminated from the territories capable of benefiting from the form of government of which he is treating most parts of the earth and most periods of human history" (p. xxx). The editor seems to have an inclination towards the more conservative side on many points himself, but this does not, I think, spoil his judgement and appreciation of Mill. He thinks that the conclusiveness of Mill's argument in *Liberty* depends on the denial of "original sin": (p. xix).

It is much to be hoped that the new edition will result in the direction of increasing attention to the works edited. Whatever criticisms can be brought against Mill as a thinker apply much more to the rest of his work than to his political thought, and his *Liberty* and *Representative Government* remains by far the best-known clear and succinct defence of the rights of the individual and the cause of parliamentary government. In the closing words of the introduction the editor on the whole judiciously sums up Mill's relation to present-day political problems in these words. "Wherever he is conservative, wherever he accepts a well-established institution or practice and gives it his approval, the British concept of responsibility of ministers, the United States Senate or Supreme Court, the policy of fostering responsible self-government in the Colonies, the principles of the Swiss and American Federations, all these institutions and practices flourish and are accepted to-day after enduring dangers and strains beyond even Mill's most pessimistic imaginings. And wherever Mill was advocating some innovation, competitive examination for the civil service, women's suffrage, proportional representation, these devices are now general or at any rate widely accepted in many lands. Only his safeguards against extreme democracy, his plural votes and exclusions from the suffrage have disappeared in countries where they existed, and have not been established where they were not found before. It is a small abatement from the effectiveness of his foresight, and whether it is any abatement at all from his sagacity is a question which the present age should not answer too glibly."

A. C. Ewing.

The Principles of Moral Judgment. By Dr. W. D. Lamont. (Oxford, Clarendon Press. 1946. Pp. xxi + 225. Price 15s. net.)

This book must be classed on the whole as an example of positivist ethics, since it insists that we cannot raise the further question whether actual ultimate standards general to the human race ought or ought not to be followed, but I cannot see that despite many merits it adequately appreciates or grapples with the issue between this type of view and non-naturalist objectivism. We seem to have reached a point at which ethical thinkers of the positivist type have so habituated themselves to looking at the matter from their point of view that they either do not think it necessary to trouble much about advancing arguments which will convince the unconverted or greatly

over-estimate the strength of the arguments they do advance. I can only say that it seems to me that what is put forward by the author as the main argument for positivism rests on nothing better than a merely verbal point. He says "if we assert that there is some supreme standard in accordance with which we ought to pass judgments on actions, we are asserting, on the one hand, that the standard is supreme (and that there can, therefore, be no higher standard), and, on the other hand, implying by the 'ought' a further higher standard of judgment in accordance with which we judge our 'supreme' standard (and which cannot then be supreme)" (p. 10). Now does "supreme" here mean what ought to be the standard for men or that standard which men actually follow in their judgments? If the former, it is no doubt redundant to add the word "ought" when you have already said that the standard is supreme, but need the advocate of the view Dr. Lamont is criticizing add it? Cannot his view be adequately stated without doing so? If, however, the "supreme standard" only means the standard actually adopted, it has not been shown that it is illegitimate to ask whether it ought to be the standard, because "ought" is not in that case already included in the notion. On the other hand, when Dr. Lamont goes on to talk of the possibility that it might turn out that there were certain principles which were necessarily presupposed in any moral judgment we could make (p. 12), he is on a path which might perhaps, if followed further, lead him to a quite different position; but, as far as I can see, his argument in Chapter VII, where he does develop the point a little more, though very interesting, leaves the position in this respect distinctly vague. His positivist outlook is also supported by a criticism of Prof. Moore in an appendix, but this would at the most only refute Prof. Moore and not all those who believe in objective value-predicates. Moore's notion that intrinsic goodness would still necessarily belong in the same degree to anything which now has it even if its context were quite different has never been popular even among objectivists.

Dr. Lamont is also influenced by certain arguments which seem to support the view that there is a close connection between emotional attitudes and the concept of goodness; but it does not seem to me that one need be either a naturalist or a subjectivist about good to admit such a connection. Suppose one defined "good" as "what ought to be the object of such attitudes." Then you have a definition that recognizes the connection between ethics and psychology and yet does not reduce the former to the latter. The author himself says, "I am not professing to show that 'good' is to be subjectively defined as 'that which is willed or desired,' for that is not the theory which I hold. I work only on the hypothesis that good has some essential reference to will or desire, and that any definition of it must be compatible with this reference" (p. 97); and one might agree with him in rejecting any "intrinsic theory of goodness which denies that the predication of goodness presupposes any relation in which the good thing stands to something else, namely the ends and interests of a conative subject" (pp. 103–4), without *reducing* the conception to his actual ends, even if we mean by that (as Dr. Lamont does) not what he actually desires at any particular moment, but what he will desire in the long run (p. 105 ff.). Why not a partly ethical and a partly psychological definition? I think that the notions involved in "ought" are those most recalcitrant to a psychological definition, and an ethics might still be non-naturalistic if it renounced the indefinable good but defined good in a way which involved ought. And I am not sure that Dr. Lamont does not really mean to set up a non-naturalist theory of the "ought," only he seems to leave its connection with the good obscure. This, I think, is largely because the chapter in which he deals with it (VII) is much too condensed. It should,

in view of the preceding discussion, have been the main chapter of the book; but even as it stands, it is a very valuable contribution to the subject. The view put forward is, briefly, that as regards content our value judgments are grounded in our desiring and as regards order in our rational nature, i.e. the genuine moral ought comes in when we recognize general principles which imply that the ends of others are just as worthy of respect as our own. Such an approach certainly deserves serious consideration, and should have been worked out in more detail. In particular, what is meant by recognizing that it is obligatory to consider others even if we happen to want much more to prefer our own interests? The tenor of the book would suggest that to determine what we ought to do is only to determine the standard which people generally assume in fact in moral judgments, but if so we get dangerously near the vicious circle that "S ought to be done" means "People think S ought to be done." It is hardly possible for Dr. Lamont to meet the situation in the way in which many positivists do by saying that ought is to be defined in terms of a general feeling of approval, for he explicitly bases the notion of "order" in ethics on reason. Is he, while upholding a naturalist theory of good, at least drawing near to a non-naturalist theory of obligation (a not necessarily inconsistent position)?

I have dealt with these most fundamental questions at a length out of proportion to the space I shall devote to the rest of the book, but I want to emphasize that there is a good deal of interest in it besides the discussion of the topics on which I have touched above. There is, for instance, a development of the notions of equality and liberty as fundamental, an attempt to make rights prior to duties, a particularly interesting criticism from a utilitarian angle of Ross's theory of promises, and in the discussion of determinism an ingenious attempt to prove that the principle that every event has a cause implies that every event has an effect (pp. 196–98). A feature of the book is the extent to which the author makes use of legal arguments to show what ethical standards people use. It seems to me that there is a good deal of danger in this, since even apart from the frequent cases in which the law represents only the morality of a previous generation the majority of moral obligations are not such as are or ought to be enforced by law, so that the non-interference ordered by the latter with certain activities need not imply anything like moral approval. As an example of the abuse of such a legal argument I can take the reply to the contention that, if anything is to be good as a means, this implies the intrinsic goodness of something else to which it is a means (p. 110 ff). The author here actually seems to argue that, because the British law pronounces it legal to take action which will harm others in order to advance your own lawful interests and does not add that the end must be good, therefore judgments as to means do not presuppose judgments as to the intrinsic goodness of ends. Surely all the legal point shows is that those who made the laws thought that it was desirable that people should be left *legally* free to further what they took to be their own interests even in some cases where their action was undesirable. But perhaps I have misunderstood the argument in question.

Taking the book as a whole, I should certainly, while not thinking it particularly suitable to be a general ethical textbook for students, for which purpose I think it was not intended, recommend it to the serious attention of those interested in ethics. There is a refreshing novelty about the line of approach adopted in the book, and it does make a real contribution to the subject.

A. C. EWING.

The Idea of Perfection in the Western World. By MARTIN FOSS. (Princeton University Press. 1946. Pp. 102. $1.50.)

This is a very able, very difficult little book. Mr. Foss concentrates on his thesis and on the history of his selected Idea, but he finds so much hanging on to that history and showing through it, that his hundred pages are packed tight.

He defines perfection as the conformity of a reality to its concept. A manufactured thing which fully realizes its purpose is perfect. We extend the idea to persons in so far as they are absorbed in some definite purpose: we may speak of a perfect butler or a perfect typist, but hardly of a perfect man. A power-loom that weaves well is perfect; it is not expected to bake bread. The more limited the end, the more appropriate is the concept of perfection.

One outcome or example of this is seen in the way in which pure thought may make perfect systems, detached from the tangles and failures of actual life. Philosophy and theology through the ages have been haunted by the attraction of a complete and rounded whole. Yet if they are to keep their souls they must always turn back to reckon with some rebellious factor, something left out or something "beyond." It is at our peril that we let the idea of perfection take any but a strictly subordinate place. Above all, "a perfect God, a God who in a perfect way fulfils his end, is an irreligious concept" (p. 26), transforming God into an expediency, into a thing.

The Old Testament, says Mr. Foss, never speaks of a perfect God. Its most characteristic word is "kabod," which means force, will, heart:—the creative force of which the world is full. (This is rendered very inadequately in the Septuagint by *doxa*, which means something like prestige; a term rescued by St. Paul when he made it stand for the beautiful conception of the conquering power over suffering, the power of justification and salvation (p. 28), which in our English version is the "glory" of God.) From New Testament times onwards to our own we see a wrestling between this Jewish-Christian thought and the Greek vision of completeness. Sometimes the word perfection is kept but given the new meaning of excellence, surpassingness. This is by no means justifiable; we have "simply an old word used for a new meaning, for which it is not suitable" (p. 30).

> "We use 'perfection' and 'excellence' synonymously because we are not aware any more that perfection is a static completeness and that excellence is a dynamic movement beyond a limit. Perfection emphasises the end, excellence the way. And so we do not become aware of the difference between the totality of conditions on the one hand and the unconditioned on the other. . . . We are in the sphere of an unconsciously growing development, and those who develop generally do not recognise the new that they are shaping " (p. 32–33).

Finally, as in theology, so in aesthetics and in ethics, perfection can never be the keyword.[1] Kant based aesthetics rightly for the first time when he challenged the idea of end and purpose in art.

> "He not only discovered the beautiful as indifferent to end and perfection, but also in the second aesthetic entity, the Sublime, he discovered a sphere which is a repulsion, a destruction and violation of end and perfection, a total negation of these values. . . . The depth of art is a beyond to the world of ends and perfection, a refusal even of this world,

[1] The English reader may find help here in a much easier exposition of a related doctrine:—*The Limits of Purpose*, by J. L. Stocks (Benn, 1932).

in favour of a higher world. Had he followed this idea, he would have found the TRAGIC as the soul of all art" (pp. 60, 63–4).

The greatness of the tragic hero "manifests itself in the beyond which for him is death, and for the spectator resurrection." Likewise in the ethical life, man "does not start with a fixed and limited end, finding his satisfaction in a likewise limited fulfilment. It is an ideal which he lives but cannot put into words, and this ideal is constantly developing, taking new shape in the actions which lead to its realization and driving always beyond the scope of these actions . . . an all-embracing bond which unifies the world and overcomes it" (pp. 81–2). "Self-perfection" would be as misleading a keyword as "greatest pleasure." We come nearer with "service" and "love."

The author seems equally at home with writers of every period from the Greek to our own day, and the present reviewer is incompetent to criticize the history he gives. Yet I believe I could have followed the story better if it could have been presented as a process of the mingling and cross-fertilization of different ideas, each stimulated by the other and each in turn helping to bring something new out of the old. Failing this, if it had to be seen as a mere contest for supremacy, it might have been the contest of mighty opposites. But in fact one protagonist is strait-jacketed by the presentor's continual recalling of it to its most abstract and trivial form, while its opposite is allowed, unfettered, to be a very Proteus.

I find it remarkably difficult to keep the perfection-idea as nearly empty as Mr. Foss would have it. "A power-loom of which the pistons and levers work without any friction does its weaving well and is, therefore, in all regards perfect. . . . It is an ultimate, absolute fulfilment of its concept" (p. 10). But is this true? and what lies behind it? Man's first concept of a power-loom must have been very inadequate and very vague. The idea and the thing developed together, each in turn prompting and taking the lead; the *telos* standing not only for the guiding lines but for the urge forward. "What a power-loom ought to be" breaks through one boundary after another, economizing power or increasing speed or adapting itself to a wider range of skill. In short, the idea of perfection in practical use seems to me to make the transcendence of limits even more prominent than the keeping within them. A perfect butler (most butler-keeping households in England must have felt of late years) must be able to take charge and inspire confidence not only during a dinner-party but during an air raid.

Something like this is the best analysis I can make of the shock of surprise and disagreement I felt in reading p. 29, where Mr. Foss objects to the redactor's choice of words in Matt. v. 48. "Be you therefore perfect, even as your Father which is in heaven is perfect." "Christ puts before men the sublime request to love their enemies, the most extraordinary request of Christian religion, an overflowing over all boundaries, an excess of love. And just this extreme, this most irrational demand is characterized by the frigid symbol of intellectual balance and order." (The proper word, he thinks, is given in the parallel passage in Luke, "Be you therefore merciful, as your Father also is merciful.") Will he find frigidity likewise in later phrases, of a man tense with the imminence of martyrdom:—"He that is near to the sword is near to God, in the presence of wild beasts, in the presence of God—only may it be in the name of Jesus Christ, that we may suffer with him. *All things I endure, since he, the perfect Man, makes me strong.*[1]

However, a writer must describe a scene as he sees it himself, whether as life pressing down the grasp of death or as the fruitful wrestling of the living

[1] St. Ignatius of Antioch to the Smyrneans, *c.* 115 A.D.

with the living. "The critical attitude of this book," says Mr. Foss, "is meant to clear the way for a more elaborate and constructive approach which I hope to publish soon." We shall look forward to this.

HELEN WODEHOUSE.

Ibn Maskawaih. By KHWAJA ABDUL HAMID. Pp. 130. Shaikh Muhammad Ashraf: Lahore. 1946. Rs. 2·8.)

Ibn Maskawaih has been neglected as a philosopher; de Boer allows him some three pages in the *Philosophy in Islam* but is mostly concerned with his ethics while the *Encyclopaedia of Islam* ignores his philosophy. Then in 1945 Mr. Sweetman translated his *al-Fawz al-Asghar* and here is a study of that work. It treats of three subjects, God, the soul, and prophets, the argument moving along familiar lines; the cosmological and ontological arguments for the being of God and proof that the soul is neither body nor form and survives the body. As man is higher than animals, there must be prophets, who are higher than common men, pure souls who descend from God and then rise again to Him carrying with them common men whom they have persuaded by words that all can understand. Philosophers can only rise to Him and cannot tell what they have learned of Him to men of ordinary understanding. The argument is the usual mixture of Aristotle and Neo-Platonism. The author of this little book has done his work well, he has been fair in reporting the views of Ibn Maskawaih, his criticism is usually fair, and he refrains from extravagant laudation. He is wrong in thinking that the doctrine "from the one only one can proceed" was the cause of the adoption of Neo-Platonism by the Arabs. Also much that "dates" is omitted, such as "the power of sight by its fiery rays senses other external fiery rays." No attempt is made to criticize the book in the light of modern philosophy and psychology.

A. S. TRITTON.

Ideology of the Future. By MUHAMMAD RAFI-UD-DIN. (Printed at Jammu; published by the author. 1946. Pp. 561.)

The argument of this book can be summed up briefly. The Creator cannot do other than create. What used to be called matter is now known to be force in equilibrium; this equilibrium is not perfect so there is always change which is the mind of the Creator working towards Himself. There are no gaps in this course of change; the mind of the Creator in matter works against the laws of physics, rises above them and life is the result; the animal works in and against the bounds set by its instincts and, after many false starts, man is the result; man is aware of himself and, in spite of errors and failures, he is on the road to knowing that he is kin to the Creator and will at last share to the full in the beauty of His holiness. The moving force in the world is love and hate is only the obverse of it.

The author criticizes other thinkers. McDougall made man a bundle of instincts but had to use names for man which did not fit this theory. Freud described the activity of man's mind accurately though his foundation was wrong. *The Textbook of Marxist Philosophy* contradicts the master.

There is little new here. Sincerity is evident; one feels that one is reading a disciple of the mystics who were consumed by love to God, though the author teaches that contemplation and prayer are only means to action. The emphasis on creation is common to Muslim thinkers, so is the secondary role given to reason. The use of beauty for the ideal and love as the motive

comes from the mystics. To an Englishman, the term "self conscious" for the perfect man is unfortunate.

The book is too long, the author repeats himself without mercy on his readers; it is a sermon rather than a philosophy. Unfortunately it is marred by mistakes in English, in spelling, and by legions of misprints.

A. S. TRITTON.

The Theory and Practice of Philosophy. By ABRAHAM EDEL. (New York: Harcourt Brace and Co. 1946. Pp. xii + 475. Price $3.)

This introduction to philosophy, some 230,000 words in length, is meant to provide "basic material for a full year's course." It may interest teachers and students in this country to know what ground an American student is expected to cover in twelve months. After mastering a section on The Nature of Explanation (teleology, causality, mechanism, natural law), the student proceeds to an acquaintance with Empirical or Scientific Method. Here the presiding genius is M. R. Cohen, and the path is smoothed by numerous apt illustrations; but the traveller has to apply his mind not only to discussions of contemporary problems in epistemology, but also to a bewildering variety of theories propounded on these subjects by writers from the time of the ancient Greeks to the present day. If he is at all wearied by the effort of assimilating this mixture of historical and argumentative material, he must gain his second wind, because a similar mixture awaits him along most of the route he has still to travel. The third stage of the journey is devoted to Man, and such problems as those of body and mind, and self-identity, have to be tackled along with the views of Descartes, Berkeley, Hume, Kant, and modern naturalists. In stage four the going is easier, if only because the subject, Human Bondage and Human Freedom, is treated more discursively, and the style is more that of the monograph than the text-book; here Mr. Edel does justice to his considerable gifts both as an expositor and as an independent thinker. Finally, an heroic effort is made in 150 pages to expound the idealist and materialist "perspectives" on metaphysics, religion, art, and the realm of "human affairs," i.e. the problems of ethics and politics.

Students capable of absorbing all this material in two or three academic years, let alone in one, are made of sterner stuff than those in my experience. But even if they then learnt from the book the theory of philosophy, I doubt whether it would stimulate them to its practice, or to philosophize for themselves. To read of this "approach" and that "approach" is to be tempted to memorize rather than to be encouraged to think. The book is learned and often acute, but, for me at any rate, it is too massive. It may seem ungenerous, therefore, to ask for more than is there already, but it is surprising, in a work which attempts to be so comprehensive, to read about idealistic theories of art without finding the name of Croce, and to discover that, though philosophies of history from Augustine to Spengler have their place, problems arising from the nature of historical knowledge are ignored altogether. It would be more reasonable to ask for accuracy, but anyone's short summaries of philosophical masterpieces are apt to be often misleading, and perhaps Mr. Edel's statement that journalists are amongst the auxiliaries in Plato's ideal state is a tribute to the respect in which their profession is held in America. In his preface the author speaks of the effectiveness of the *Republic* as an introduction to philosophy; if he had any thought of superseding it, I am bound to say that it is still to Plato and not to Mr. Edel that the attention of my own students will be directed.

T. M. KNOX.

Power and Events. By ANDREW PAUL USHENKO. (Princeton University Press. 1946. Pp. xxi + 301. Price $4.00.)

Mr. Ushenko wishes to prepare the way for what he calls a "dynamic philosophy" by establishing that the principle of power or potentiality is fundamental in all explanation. He discovers anticipations of his views in the work of Aristotle, Locke, Bergson and Whitehead, but the large sweep of his thought and the free way in which he uses technical terminology suggest that he has been influenced more by the last named philosopher than by any of the others. It is difficult, indeed, to find one clear sense which the word "power" can bear in all the contexts in which he employs it.

The book opens with a chapter on truth in which Mr. Ushenko advocates a "perspective, or conformal transformation, theory" (p. 19). This is supposed to combine the merits of the correspondence theory with those of Dewey's doctrine. It has application in art and philosophy as well as in science: "Conceptual theories inevitably lead to simplification, but the choice of a simplification varies with different objective situations and perspectives . . . We enter here upon the grounds of aesthetics; and the principle of simplicity in nature may be, in the last resort, an artistic truth" (p. 50). The second and third chapters contain the thesis that power is observed, e.g. when we notice that a picture holds together or that a flash has made us blink. This is the most easily intelligible part of the book. With reference to the problem of the speckled hen (which he claims as his own discovery) Mr. Ushenko states that some of the data of perception are determinable (i.e. actually indeterminate) with an "impulse toward specification" (p. 107). The fourth and last chapter is about concepts and formal logic. Here it is argued that "in order to stabilize and organize the pre-analytic dynamics of experience" concepts "must be a priori or pure" and that "formal logic is the science of pure concepts" (p. 252). One section contains a discussion of the paradoxes created by sentences which appear to refer to their own truth or falsity. It is not clear to the reviewer how this is connected with the main theme but the suggested solution is interesting. Mr. Ushenko asserts that "conceptual intuition" has not been convicted of any fault, since the sets of symbols which puzzle us fail in a quite ordinary way to be significant sentences. In support of his view (as expounded previously in an article in *Mind*) he quotes from a letter by C. I. Lewis (p. 266).

WILLIAM KNEALE.

The Formal Distinction of Duns Scotus. By MAURICE J. GRAJEWSKI, O.F.M., M.A. *The Importance of Rural Life according to the Philosophy of St. Thomas Aquinas.* By GEORGE H. SPELTZ, M.A. (Both published by the Catholic University of America, Washington, D.C.)

The second of these dissertations will serve as a reminder that the medieval Schoolmen were not exclusively concerned with purely abstract speculations, and that an important test of the validity of any philosophical system is to be found in its applicability to every-day life. As an exercise in what may be described as pure philosophy, Fr. Grajewski's thesis on Scotus is, naturally, of greater importance; but Fr. Speltz's "study in Economic Philosophy" has this to be said for it that it is only by such practical applications that men can hope to build a world safe for pure philosophy.

Duns Scotus has been aptly described as *Doctor Subtilis* and the penetrating analysis of his system has played an important part in the development of Scholastic thought; there are those who believe that sufficient attention has

not been paid to his work. It will suffice here to say that those who are unacquainted with Scotus or have read little of his writings will find this essay a very useful introduction to the literature of Scotism and to his dialectical method, whilst, even for the expert, we believe that this discussion will be of profit. The question at issue, the *distinctio formalis*, is rightly described by Fr. Grajewski as "*the* crux in the philosophy of Duns Scotus," and this investigation is a serious and valuable contribution to a solution.

Of Fr. Speltz's work it can be said that it shows a wide acquaintance, not merely with the writings of St. Thomas himself but also with the history of the period and with later social and economic developments. And there is something refreshing in a passage such as: "A city which has an abundance of food from its own territory is more dignified" (*dignior* = higher in the scale) "than one which is provisioned by merchants." (How much more than one which is inadequately provisioned by them). Again, the modern egalitarian fanatic should ponder the wise words: *Ordo autem maxime videtur in disparitate consistere.*

THOMAS CORBISHLEY, S.J.

Proceedings of the Eighteenth Indian Philosophical Congress, Lahore, 1943. Part II. Edited by DR. T. M. P. MAHADEVAN. Pp. 289 + 5.

This volume comprises thirty papers or abstracts, ranging over a wide variety of topics; some are tantalizingly brief, occupying no more than four or five pages. The collection begins with the Presidential Address by P. N. Srinavasachariar, a general survey of contemporary philosophy bristling with such words as "pan-psychist," "personalist," "mentalist" and the like. Of the other items eight deal specifically with Indian philosophy. For most readers of PHILOSOPHY these will not be of primary interest, but that is no reason for being blindly parochial; our first task is the cultivation of our own garden, but we need not deny the existence of our neighbour's next door, or even scorn whatever hints we may get (if we can) by looking over the fence. Lord Russell did well to entitle his recent work *A History of Western Philosophy*: the characteristics of our own tradition stand out the more clearly by contrast with another. For the benefit of students of Indian philosophy, the titles of these papers are "Madhva's Absolute," by H. N. Raghavendrachar (an attack on the usual interpretation of Madhva's philosophy), "Some Problems of the Māṇḍūkya-kārikā," by T. M. P. Mahadevan, "Some Aspects of the Philosophy of Buddha," by A. P. Guruswamy (including a comparison of Buddha with Christ), "An Examination of Ramanuja's Criticism of Ego-less Consciousness," by S. K. Saksena, "The Jaina View of Causation," by C. P. Brahmo, "The Concept of Sthayibhavas in Indian Poetics," by D. D. Vadekar (suggesting a parallel with McDougall's theory of instincts or propensities), "Is Madhva a Monist?" by H. K. Vedavyasachar (a vigorous reply to the earlier paper by H. N. Raghavendrachar) and "Buddhism: The Conception of God," by Miss K. Saberwal.

Two papers are devoted to Islamic philosophy, one by M. Umar-ud-din ("Muslim Philosophy—its Scope and Meaning") and the other by Dwight M. Donaldson ("The Beginning of Philosophical Ethics in Islamic Thought"). Both are jejune in the form presented, and neither writer is happy when tracing the development of Islamic philosophy out of Greek: Mr. Donaldson misunderstands Aristotle's treatment of νοῦς, while Mr. Umar-ud-din makes the startling statement that among the topics left unexplored by Greek philosophy were the attributes of God and the immortality of the soul.

The remainder of the collection is devoted principally to European philosophy. The standard of the papers is not, in general, very high, but they have their interest nevertheless. Among the best is that on "Subjectivism in Kant," by S. Sahu, who examines the First Critique and urges with Kemp Smith that strong subjectivist influences were at work in both the Aesthetic and the Analytic, and who does well to refer to the penetrating treatment of the *Ding-an-sich* in Adamson's *Development of Modern Philosophy*. Papers on Bergson are contributed by E. Gathier ("Is Bergson a Monist?"), who attempts unconvincingly to read into *L'Evolution Créatrice* interpretations derived from *Les Deux Sources de la Morale et de la Religion*, published a quarter of a century later; and by H. S. Asthana, who writes briefly but lucidly on "Bergson's Ethical Outlook." It is interesting to find this attention paid to a moral theory which, although discussed not long ago by Dr. H. D. Oakeley in *The Proceedings of the Aristotelian Society*, has in general been unduly neglected by English Philosophers. R. Das and S. Vahiduddin are both stimulating, the former on "The Nature of Philosophic Thought in Hegel," and the latter on "What is Living and What is Dead in Hegel's Philosophy of History." Dr. Das brings up acute problems confronting the Hegelian dialectic, but skirts the ill-starred definition of philosophy early in the Encyclopaedia *Logic* as "the thinking study of things." Dr. Vahiduddin, rightly criticizing Hegel as Croce does for reading into history some inevitable "Fortschritt im Bewusstsein der Freiheit," holds nevertheless (as against Croce, whom he does not mention) that in view of the "List der Vernunft" the course of history must be viewed against the background of an eternal reality. While censuring Hegel he demurs equally to Nicolai Hartmann's *Das Problem des Geistigen Seins* (a work of considerable importance if only because of the difficulties it shows to confront a philosophy of history based on an extreme epistemological and ontological realism, thereby placing Collingwood's anti-realist polemic in a clearer light).

W. Lillie gives a study of "The Present Position in Inductive Logic" based principally on the work of Keynes and Nicod, Braithwaite's review of Nicod in *Mind*, Vol. XXXIV, and discussions by Broad of similar date. It is a pity that his references to Nicod are to the French edition, and not to the more accessible translation by Wiener (London, 1930), and that he says nothing of the developments of the last twenty years in the programme and aims of physics, or of the work of Reichenbach or the able contribution made by von Mises in his "Probability, Statistics, and Truth." A similar topic engages D. M. Datta, who writes thoughtfully on "The Logic of Scientific Verification." S. C. Chatterjee ("The Pragmatist Theory of Truth and Error") attempts half-heartedly to defend James, Schiller, and Dewey against the charge of being pragmatists, while J. N. Chubb, who calls his paper "Freedom and Truth," says nothing about politics but puts forward an eloquent plea for a supreme state of mind free from all the limitations of thinking, singing with Goethe (not, he urges, arguing) "Grau ist alle Theorie, Und grün des Lebens goldner Baum." This is the presidential address to the Logic and Metaphysics section. None of the remaining papers is of any great interest, apart from some thought-provoking remarks by Mr. Rajnarain on "Types of Sensory Phenomena in Mystic Life."

In general, the value of these papers lies less in their performance than in their promise, which is certainly there; one's thoughts on putting them down turn rather to the clash of traditions they reflect, Hindu, Islamic, and Western. Matthew Arnold spoke of himself as "wandering between two worlds, one dead, the other powerless to be born," but his situation seems absurdly simple when

contrasted with the diversity of courses confronting India in the present century; the future historian will find these papers a fascinating document of her *Geistesgeschichte*.

D. A. Rees.

The Vedāntic Buddhism of the Buddha. A collection of historical texts translated from the original Pāli and edited by J. G. Jennings, M.A. (Oxon.), C.I.E. (Geoffrey Cumberlege, Oxford University Press, London. 1947. Pp. cxvii + 697. Price £2 2s. net.)

The study of Buddhism has been remarkable for the cataclysmic nature of its progress. First seriously investigated by Burnouf in late Sanskrit documents it became as thus reconstructed largely put aside, except in France, when the Pāli Canon of Ceylon was made accessible. T. W. Rhys Davids through his life-long labours not only made the Pāli Scriptures known, but imposed on them his own conception of the early history of Buddhism. Then came another cataclysm. His devoted wife and fellow-labourer set to work to destroy the whole structure of what we know as Buddhism, not merely the interpretation of Rhys Davids, but also the historical Buddhism of Ceylon, Burma, and Siam. This she looked upon as degenerate monasticism, and found the real Buddhism of Buddha so different that she preferred to give it another name, Sakya. Her destructive work, mainly aimed at the views of Rhys Davids, was often effective, but of the rest no more need be recorded than the words of the late Professor E. H. Johnston: "Her constructive formulation of the Buddha's doctrine appears to me to be at complete variance with all we know of Indian thought in the sixth century B.C."

It is thus clear that the way is open for another reconstruction, not of Buddhism as it now exists among its adherents, but of the Buddhism which is supposed to lie behind all its sacred records, and which Mr. Jennings finds to be Vedāntic Buddhism. But he gives us far more than that. In this volume of nearly 800 pages he presents in a careful translation the actual evidence from the Pāli Scriptures and historical works on which his theory is based. It is such a radical reversal of former views that it can hardly be discussed adequately in a short notice, and it is only possible to suggest the general lines that must be pondered and reconsidered.

His sub-title tells us that it is based on historical texts, but this need not be pressed too closely, for there is only one essential date, that of the death of Buddha, and he leaves it undecided whether this was 487 B.C. or sixty years earlier. The latter date is in fact that used by the Ceylon Buddhists, but it agrees neither with that favoured by modern scholars nor with any of the dates adopted by the various schools of Buddhists in India or China. The question of translation is also affected by the fact that the records are full of stories of gods and miracles. The author's scepticism about these is shown by his translating the words for "god" as "spirit," "angel," or "fairy," and in omitting from the text all the passages which narrate miracles performed by the Buddha, his followers, his opponents, and the gods, as being accretions. The omissions are faithfully recorded in the notes or the appendices, so that the reader is never misled.

The most important omissions, however, are found when we come to the doctrine. No one doubts that the belief in gods, in reincarnation, and in karma (retribution for an individual's acts) were current beliefs in Buddha's time. But the author tells us that there is no proof that Buddha himself accepted the existence of supernatural beings. "Mention of them in the

Canon appears to be by way of ornamental addition to enhance the importance of various occasions." So too of reincarnation. That the Buddha believed in rebirth he denies, and so, when in the First Sermon craving is said to be "tending to being again," he suggests that the word in question is perhaps interpolated, "a monkish explanatory addition," but he keeps it in his translation, and makes it mean "recurring." Accordingly, "all definitely transmigrationist phrases and passages have been omitted from the present text and have been placed in footnotes," as being probably additions by later Buddhist authorities, whose view of karma was personal or individualistic.

This last point brings out one of the author's fundamental contentions. An individual cannot suffer for his sins in his next birth, for he will not have one, but there is a "Collective Karma." "It is not one single individual who suffers or who gains by any action whether in this life or in any other; nor is it one soul who passes on a load, heavy or light, or an advantage, great or small, to one other soul brought into some close and mystical relationship with the former; but it is all the world, in each transient generation, that suffers or gains by the deeds, words, and thoughts of every fleeting individuality that manifests for a brief lifetime the phenomenon of separate being." This well brings out the author's claim that his conclusions are definitely his own.

In this fundamental unity of all life we appear to have the reason why the author calls the Buddhism of Buddha Vedāntic. The theories of Vedānta, he holds, had already reached their full development. As in Vedānta there is the One divine substance. He finds it in the words of Buddha at his enlightenment, which he translates freely as, "all things pass away (save the divine substance in which) all things are originated (and of which) all things are compounded." The words in brackets, he tells us, are implicit. They are at least required by his theory. He also finds that the doctrine of *Māyā* or the illusory nature of all phenomena was taught by thinkers of the Vedāntic school, and it would appear that Gotama's teachers Ālāra Kālāma and Uddaka imparted to him this philosophy. However, he admits that they may possibly have been Yogis of the dualist Sānkhya school.

It may seem strange that the author after calling Buddhism Vedāntic should say that metaphysics was a region "where the Buddha definitely refused to tread." But he goes further in pointing out two respects in which Vedāntic Buddhism differed from classical Vedānta, not in avoiding metaphysics, but in asserting realism. He holds that, although it is more than probable that Buddha was acquainted with "the ancient Vedāntic theory of *Māyā* (illusion) or idealistic monism," yet he rejected it. To Buddha the world was not illusory, but vividly real. This is scarcely Vedāntic. In the next place the Buddhistic One or the divine substance, unlike the reality-intelligence-bliss of classical Vedānta, was an impersonal divinity, it was "a single divine impersonal force," and yet we are told that though impersonal it does not involve atheism. This touches upon theology, but the immediate question is whether it is Buddhistic. Further, his denial of rebirth does not make it look more Vedāntic. The author thinks that the doctrine of rebirth or personal karma was apparently introduced into Buddhism subsequently to the period of Asoka's Edicts, since Asoka ignores it. Asoka, however, speaks of *svarga*, which is usually taken to mean "heaven." The author gets over the difficulty by supposing that it means not a future heaven, but the present peace of Nirvāna in this life.

These radical novelties can only be properly appreciated in relation to

the texts, and the author has chosen an excellent method of presenting them. They are arranged so as to give a life of Buddha along with selections from his discourses, and thus we get the Vedântic Buddhism of the Buddha. The appendices contain supplementary texts and important discussions. The translations from Asoka's Edicts and the Rules for admission to the Order with the regulations for monks are especially welcome.

E. J. THOMAS.

The Case for Pacifism and Conscientious Objection: A Reply to Professor G. C. Field. By Rev. E. L. ALLEN, FRANCIS E. POLLARD, and G. A. SUTHERLAND. (London: Central Board for Conscientious Objectors. 1946. No price given.)

Three essays of 24 pages each are here bound together in answer to Professor Field's *Pacifism and Conscientious Objection* (Cambridge University Press, 1945, 3s. 6d.) which was reviewed in PHILOSOPHY for July 1946.

Mr. Allen, who is Lecturer in Theology in the University of Durham, writes the first, on *Pacifism as an Individual Duty*. (The titles follow those of Professor Field's chapters.) In ethical theory he believes there is little difference between Professor Field and himself, and he endeavours to make all the concessions due. It is true, he says, that the consequences of our acts must be considered; nevertheless they may be considered too much, and the plain man recognizes an honourable disregard of them.[1] It is true that no man's conscience has a right to rest on general formulæ;—the pacifist must face the arguments in favour of the particular war which he confronts, and go through the agony of questioning his principles in the light of the new and concrete crisis. Nevertheless the repudiation of slavery or polygamy "only became possible because individuals dared to arrive at it and to champion it while it was as yet quite an unpopular thesis . . . If a man is called by God to stand apart from his time in order that a new moral advance may one day be possible, what right has he to decline?"

Mr. Pollard, formerly Chairman of the Peace Committee of the Society of Friends, contributes Part II; a very thoughtful and fair-minded essay on *Pacifism as a Policy*. In his final page or two, on the duty of pacifists who constitute a small minority in their own country, he agrees with Mr. Allen:—

> "Every step forward which the human race has taken . . . has had its beginning in the mind of an individual or a small group . . . I have an impression that what our critic is mainly concerned to say is this: You may be right in all your fundamental and long-term views, but when war is upon us are they relevant? Can we do anything else but fight? No one disputes the challenge or the dilemma, but to assent to this appeal is to betray our deepest convictions and to abandon what we believe to be the hope of human good."

Part III, on *Society and the Conscientious Objector*, is written by the Principal of Dalton Hall in the University of Manchester. Many of Mr. Sutherland's students and friends must have suffered for their belief, and I think it has been difficult for him to write impartially. This essay, alone of the three, tends to repeat a note of irritability which undeniably appears here and there in Professor Field's book. Professor Field was a member of a Tribunal for four years, and perhaps did not ask himself often enough

[1] But is it relevant to illustrate from our approval of "the man who is truthful even when it would be distinctly to *his* advantage to be otherwise?" (Italics mine.).

whether if entrants to the fighting services had to justify themselves before a board, they might not produce an equally wearisome repetition of "supposed absolute, universal rules" and "ready-made sets of ideas taken over from other people," (Field pp.10, 6). Mr. Sutherland's references to Tribunals are practically all critical or hostile, and he offers no suggestion (perhaps it is impossible) to help the members in their extremely difficult task of estimating a man's sincerity.

Professor Field reports that by far the larger part of his Tribunal's time was absorbed in the discussion of alternative forms of service. Mr. Sutherland holds that such conditional exemption is illogical if the law provides for unconditional exemption at all. The objector who establishes his sincerity should be unconditionally exempted, while the rest by hypothesis have no claim. But if conditions are to be made, "the situation would have been a lot better than it has been" if the governing principle had always been most-valuable-service and not penalization. I think this is true; but in so far as penalization disappears a corresponding effectiveness of witness will be lost. "Experience in the last war suggests" (writes Mr. Sutherland himself) "that the radical objector who was ready to face repeated sentences of imprisonment rather than serve even in the Non-Combatant Corps, was the only one that the army really respected."[1]

The idea of witnessing for one's cause when one can do nothing else for it, is crucial in the last resort in all three essays. I cannot find that Professor Field discusses it anywhere, but I think he might say that it begs the question; that witnessing is valid only when the act which embodies it is a duty on prior grounds, and that this question of duty is precisely the one under dispute. To take a different example, let an educator believe fervently in the value of gentleness in dealing with children, and let us take the hypothesis that for a particular child in his charge, in an exceptional crisis, gentleness would be the wrong thing. The man has no right to persist in his normal course in order to emphasize the value he believes in, if it involves his failure to help the child. He would be acting irresponsibly;—trying (we might say) to improve upon God's will.

But this assumes that the man we speak of is the only person in charge. Most children are in the charge of more than one grown-up. Is it conceivable that certain situations may be best met by two people acting not merely differently but even along opposing lines? I have been struck by the passage which concludes Mr. Allen's essay:—

> I see no possibility of a simple solution. . . . In the last resort, each man must reckon with his own destiny and his own vocation. That one vocation is to the service of God in maintaining the closed societies of the present I grant. I only urge that there are thousands of voices which will not allow us to forget this, and that there is, therefore, all the more need that some should remind us from time to time that there is another possibility, the service of God in the transmutation of these closed societies into a more open society with something in it of the splendour and power of the kingdom of heaven.

[1] A reviewer must protest against Mr. Sutherland's central comment on conscription. "When men are forced to fight it cannot be held that they are fighting because they think it right; the reason they are fighting is because they are submitting to *force majeure*. . . . They may believe the cause is just, but that is not why they are fighting; they are fighting because the only alternative is heavy legal penalties. . . . Failure to accept this implies a belief that every German soldier is fighting in what is to him a just cause."—That is, with motives A and B both in the field, everyone concerned acts solely from B; and failure to accept this implies a belief that they all act from A.

The novel point here, if it is meant seriously and not as a courteous ambiguity, is the idea that there may be opposition not only between groping consciences but between true vocations; that the soldier and the pacifist may each be doing God's will, or rather that it takes both together to do it. This would be a deepening, and a superseding, of the fairly common view that the nationals of two countries at war have a duty to fight one another. It would go further than the generally accepted view that men whose consciences are opposed, after reflection and discussion, ought to obey them. It would share with both these opinions the danger that reflection and discussion might be abandoned too soon.

At any rate it is an interesting suggestion. I should like to know whether the writer meant it, and should then like to see it debated further.

HELEN WODEHOUSE.

Hume's Dialogues concerning Natural Religion. Edited with Introduction by PROFESSOR NORMAN KEMP SMITH, D.Litt., LL.D., F.B.A. (Nelson & Sons, Ltd., Edinburgh and London. Second Edition with Supplement. 1947. Pp xii + 249. Price 10s. 6d.)

This volume is a second edition of the work first published in 1935, and is evidence of the interest in Hume's *Dialogues* or in the editor's Introduction or in both. The only change effected in the new edition is the inclusion of a supplement containing Hume's brief autobiographical *My Own Life* and Adam Smith's *Letter to William Strahan.*

Adam Smith in this letter remarks that concerning Hume's philosophical opinions "men will, no doubt, judge variously, everyone approving, or condemning them, according as they happen to coincide or disagree with his own." Where the work is written in dialogue form, as is the case under review, still greater scope is given for difference of view because of a desire to identify some one of the characters with Hume himself.

Professor Kemp Smith in his *The Philosophy of David Hume,* published in 1941 between the two editions of the *Dialogues,* puts forward the thesis that "in the *Treatise* Hume, we find, is still maintaining, though in a half-hearted manner, a theistic view of nature; it was only later, in wrestling with the issues discussed in his *Dialogues concerning Natural Religion,* that he came to question and reject it" (pp. 563–64). In his Introduction to the *Dialogues* he identifies Philo the sceptic with Hume and asserts that Hume in that work aimed "a direct attack upon the whole theistic position" or, again, upon the very citadel of religion. This is a defensible view, capable of straightforward argument. What is probably not so defensible and what, in the light of the larger treatment of Hume published in 1941, may have to be regarded as a relic of a past tradition, is the ascription of unpleasant qualities of character to Hume by implication in such statements as that outward deference to current beliefs and practices "was a game" into which he could zestfully enter, or that, while all the time carefully avoiding a direct attack on religion, he made statements which may seem reassuring to the reader but which are "provocative" or are made with mischievous "intent."

Now, in the first place, the latter part of this interpretation requires that other evidence should be written down; Adam Smith's estimate of Hume's character is to be judged "high-pitched," intentionally "provocative," and "generously" vindicating his friend's reputation. In the second place, the editor admits that the "Dialogues" have become a philosophical classic, having acquired a unique place in philosophical literature, and that Hume's

indictment of the older ways of argument is "now but seldom challenged." Kant recognized the main criticisms as unanswerable and incorporated them in the final revision of the *Critique*. Such admissions have a significance which makes the preceding interpretation at least awkward. In the third place, Professor Kemp Smith in his *The Philosophy of David Hume* is at pains to maintain that Hume is not a sceptic, and this would seem to remove one important support in the identification of Hume and Philo. In that work he also gives an interpretation of Hume's notion of belief and of natural belief which could be developed in such a way that the position of Cleanthes is neither so absurd nor so weak as the editor suggests.

As the editor in his Introduction touches on Hume's discussion of Miracles, it may be permissible to make a few remarks. Hume may or may not have had *Faith*; Dempster, a friend of Hume, in a letter to Sir Adam Fergusson (quoted by the editor on p. 22, note 2) says that he had not; but in that same letter Dempster asserts that *Faith* is the only support of the best mode of religion. Hume himself has been criticized for also saying so. In regard to the concluding portion of the Essay on Miracles, "probably the most notorious passage in all Hume's writings" Professor Kemp Smith does offer some defence of Hume, but he takes the passage as a parody of the Calvinist account of how Faith operates. The passage is well known. "So that, upon the whole, we may conclude that the Christian Religion not only was at first attended with miracles, but even at this day cannot be believed by any reasonable person without one. Mere reason is insufficient to convince us of its veracity: And whoever is moved by *Faith* to assent to it, is conscious of a continued miracle in his own person, which subverts all the principles of his understanding, and gives him a determination to believe what is most contrary to custom and experience." Along with this I put the following from St. Augustine's *De Civitate Dei* (Bk. xxii, ch. 5) without comment: "If our adversaries believe not that the Apostles wrought any such things for confirmation of the resurrection of Christ it is sufficient then that the whole world believed them without miracles, which is a miracle as great as any of the rest."

B. M. LAING.

A Research for the Consequences of the Vienna Circle Philosophy for Ethics. By W. F. ZUURDEEG. (Utrecht, Kemink en Zoon N.V. Pp. 244. No price stated.)

This is a book about Logical Positivism, written from an altogether unusual point of view. It is a thesis for the degree of Doctor of Theology in Amsterdam, and the author's main aim is to evaluate the ethical writings of Schlick, Von Mises and Neurath from the standpoint of his own theological position, that of "radical Protestantism."

The first half of the book is purely expository, firstly of the general philosophical outlook of the Vienna Circle, and secondly, in greater detail, of their views on ethics. This account is, as far as I can judge, an accurate one, and certainly its impartiality merits the highest praise. It might usefully be placed in the hands of enquirers who "want to know something about Logical Positivism."

In the second half, which is concerned with criticism and evaluation, what is of chief interest is the extent of the *agreement* which is revealed between Dr. Zuurdeeg's position and that of the Vienna Circle. He writes on p. 159 of an "unmistakable affinity between Positivism and radical Protestantism," and I am sure he is right here and that he is saying something important;

indeed the chief value of his book lies in the way in which he brings out this affinity between two of the major trends of modern thought which on a superficial view seem so diverse. Certainly there are important discrepancies ("it makes a big difference whether we have religion or not"—p. 136 n.) and he has several major criticisms to make, but the extent of the agreement is sometimes quite startling. He is convinced that the positivists have discovered the right *method* in ethics, though he thinks their behaviouristic standpoint vitiates their use of it by blinding them to the essential nature of moral action and moral judgments. (Incidentally, Dr. Zuurdeeg has an interesting analysis to offer of the nature of ethical enquiries, though it is impossible to outline this here.)

The affinities and discrepancies are best seen, however, in connection with his discussion of the Positivists' "world-view." He is convinced that they have such a world-view just as much as he himself has, and that a man's world-view is bound to colour his whole outlook. It is one of his major criticisms of the Positivists that they stubbornly refuse to recognize this, and on this refusal is based their search for a completely "neutral" science, which Dr. Zuurdeeg regards as a wild-goose chase. Scientific objectivity, he believes, is to be achieved not by pretending that we have no world-view, but by recognizing its nature and trying to discount its influence as far as possible. Otherwise we become not *more* but *less* objective, because unconsciously so.

Since the Vienna Circle do not recognize their own world-view, Dr. Zuurdeeg has to state it for them. He summarizes it as "materialism, relativism, naturalism, evolutionism and humanism." He has most to say about relativism ("the contention that there are no absolute values or truths"), and it is here that the extent of his agreement is most clearly shown. Eternal truths, absolute rules, *Reine Vernunft*, moral intuition, a "higher world"—all these are rejected by him just as categorically as by the Positivists. "I do not believe in a higher world," he writes, "but in God, and that is something quite different" (p. 144). "He who worships absolute norms, or the Universal Reason, who believes in the hierarchy of values, defies God" (p. 158). And so in its opposition to all such beliefs the Vienna Circle "does not attack *allies* of faith . . . but secret opponents." Church, Bible, dogma, metaphysics, absolute truths or values, moral dignity, etc. (the list is an impressive one)—all these are "earthly data" and "under the judgment of God" (p. 162). This leads to Dr. Zuurdeeg's main criticism of the Vienna Circle. For, having performed a good work in attacking so many illusions, they find their own point of stability in natural science, and this too is merely an earthly datum, no more worthy of absolute confidence than the rest. Absolute security is to be found only in God, Who *transcends* the world; and it is radical Protestantism alone which makes this clear. The fault of "the radical Neo-positivist philosophy" is, therefore, that it is not radical enough!

This is thoroughgoing criticism with a vengeance. One is impelled to ask, however, whether the acceptance of so much destructive criticism does not itself cut at the roots of Dr. Zuurdeeg's own theological position; on his own premises, is his belief in God any more justified than the positivist's in science? This is a doubt which may legitimately be felt about a good deal of modern theology. Dr. Zuurdeeg would doubtless reply that a theology (a "world-view") is not capable of justification by argument, but is none the worse for that; but is this reply satisfactory? I do not suggest that the starting-point of a man's religion ought always to lie in rational argument; but if a theology cannot turn round and justify itself by rational arguments, I suspect that in the long run it will be found to have no other justification either.

It must be added that it is a great pity that Dr. Zuurdeeg did not have his MS. carefully corrected by someone competent to revise the language. There is scarcely a single page written in correct and idiomatic English; and while this seldom results in actual ambiguity it does make the book unnecessarily difficult to read. There are also more misprints than one can easily forgive.

GEORGE E. HUGHES.

Proceedings of the Aristotelian Society, 1945–46. (London: Harrison & Sons, Ltd. 1946. Pp. 266. Price 25s. net.)

In an important and original presidential address Professor Gilbert Ryle combats the prevailing doctrine that intelligence is a special faculty, manifest in internal acts of thinking such as the consideration of propositions. As against this he argues that intelligence is directly expressed as will in some practical as in some theoretical performances, and need not imply contemplating regulative propositions. Theories of knowledge have concentrated on knowing *that* something is the case, but intelligence also requires knowing *how* to do things. Even purely intellectual activity, such as conducting an argument, consists not merely in knowing rules of thinking, but in ability to apply them. The rules may be known but stupidly applied. Acknowledgement of principles is not the parent, but only the step-child of intelligent application, A problem of knowledge is again discussed in Professor Reid's suggestive paper on "Intuition and Truth," in which he argues that *cognition* is an element in all conscious experience and includes intuition as well as propositional knowledge. Further the latter is not primary, but is dependent on an unique, irreducible act of cognition which is an intuition. No act of moral goodness, e.g., is good because it is an instance of a general moral concept; on the other hand, moral concepts are the result of reflection on moral beings and doings.

Dr. Waismann's "Are there alternative Logics" is an important contribution to logical theory. He maintains that the assumption that there is a single theory of logic embodying the "laws of thought" is not in accord with our present level of knowledge; and discusses (1) the possibility of using sentences in such a way that in certain cases the law of excluded middle does not apply since they can be asserted neither true nor false; (2) what he describes as strong and weak negations which imply truth-distance indicated by such descriptions as "not quite . . ."; and (3) the logic of memory images and sense impressions, which give rise to special problems because of their indeterminateness. Dr. Waismann shows that the language which accurately describes sense impressions has a logical structure different from that in which physical objects are described. It demands a class of propositions to form a single description, the decisive step consisting in comprehending a group of sentences in one independent unit. In a further contribution on Logic Mr. Kneale considers the "sort of truths" that constitute the science, dealing with the problem comprehensively as it appears both in traditional views and in contemporary theories. By elucidating the character of the principles implied in these, Mr. Kneale endeavours to make clear their essential relations, and to show how recent discussions point the way to a more acceptable view.

Mr. MacIver brings a challenge to moral philosophers to embark on an inquiry into the actual moral difficulties confronting the present generation. "Moral philosophy must be more empirical or perish." Fifty years ago there was general agreement among moral philosophers as to what was right. Now

the younger generation have become a society without a moral criterion. They are not without moral seriousness and recognize the difference between good and evil, but they cannot decide which is which and are without any sense of the transcendent. The older moralists fail to help, since they have not remained close to the actualities of contemporary life. The change has its roots in the Industrial Revolution, was nurtured by Marx and Freud, and was speeded up by world events of recent times. It demands inquiry both into actual conditions, and into the influences that have led to them. Such inquiry should be comprehensive, and include historical, sociological, psychological and other studies. I suggest a group of variously qualified thinkers, all "close to the realities," and that philosophers will be grateful to Mr. MacIver if he succeeds in inspiring such a group. Mr. Coddington's contribution on "Punishment" is of especial value as the work of a penetrating mind reflecting on long experience in the administration of law. He seeks to show that in imposing punishment the background is the vindication of law and the correlative social improvement of order, and that in the foreground the choice is generally narrowed to deterrence and reformation.

In his paper on "Causality" Professor Russell gives his answer to the question: Are there any self-evident causal propositions? After examining in detail the views of Ross and Broad he concludes that none of the propositions advanced by either has been shown to be self-evident. In his preliminary remarks Russell states that should this be the case it leaves the question: What is to be said of general principles which cannot be proved or disproved, but which are invaluable guides to investigation and understanding? We look forward to his views on this problem. Dr. O'Connor has presented the results of an analytic study of the concept of "Resemblance." His main purpose is to indicate how problems on universals can be stated with more precision than has hitherto been the case, and of this his analysis of resemblance provides a valuable illustration. Mr. Hardie tries to show how philosophers who have recently discussed "Phenomenalism" have failed to meet Stout's fundamental criticism that it "commits the absurdity of making what is actual depend on what is possible, instead of what is possible depend on what is actual"; and concludes that, until it is met, phenomenalism must for many remain a doctrine which "only philosophers with a long training in absurdity could succeed in believing." In his paper on Whitehead Mr. May argues that Whitehead's speculative philosophy is modelled on the method of postulates, and that his metaphysical scheme is tentative and depends for its truth on empirical verification.

G. H. LANGLEY.

Meaning and Truth in the Arts. By JOHN HOSPERS. (North Carolina University Press. London, Geoffry Cumberlege. Pp. 252. Price 22s. net.)

This is a very modest, sane, and useful book. The virtue of modesty is sometimes strained to a defect. When, after an able discussion *pro* and *con*, we should like to hear the author's own conclusion, we are often put off with a long quotation, not more able, from some writer not more authoritative. This makes the book, if not less useful, less interesting. But it is still a fault on the right side as compared with the hierophancy common in works on this subject. Yet sometimes it is just the hierophant who is quoted (p. 236); sometimes the point illustrated might be taken as agreed (pp. 5, 146).

The author's main effort is to disentangle the ambiguities of those who ask or answer such questions as: "What does this picture (or sonata) mean?" "What does it express?" "What is its significance?" "Is it true?" I found

most instructive the long chapter on "Meaning," and least the short one on "Expression." I cannot help feeling that the book would have gained by a careful analysis of Croce who is only once slightly mentioned. Apart from Croce's epistemological identification of "expression" with "intuition," his formula for beauty as "the expression of emotion" seems very near the author's own view, so far as that is revealed, and his differentiation of expression from "evocative" or "emotive" stimulus is clearer than that here given. It is hardly noticed that people find "meaning," "significance," "expressiveness" in nature as well as in paintings, presumably because of what the author calls "life-values"; but if they are present for some of us in a sunset, it is hard to see why they should not be in the most un-representative art. The artist may mean something by his pattern if it means nothing to others. Here again I think Croce would have been helpful. But the book as it stands is one to be grateful for. E. F. CARRITT.

Books also received:

MAURICE CORNFORTH. *Science versus Idealism.* London: Lawrence and Wishart. 1947. Pp. 267. 12s. 6d. net.

JOHN HOSPERS. *Meaning and Truth in the Arts.* Chapel Hill: The University of North Carolina Press. 1946. Pp. 252. 4 dollars.

THE RT. HON. VISCOUNT SAMUEL, G.C.B., G.B.E., D.C.L. *Creative Man.* The Romanes Lecture delivered in the Sheldonian Theatre, May 20, 1947. Oxford: at the Clarendon Press. 1947. Pp. 30. 2s.

STEVEN RUNCIMAN. *The Mediaeval Manichee.* A Study of the Christian Dualist Theory. Cambridge University Press. 1947. Pp. x + 212. 15s. net.

H. J. PATON. *The Categorical Imperative.* A Study in Kant's Moral Philosophy. London: Hutchinson's University Library. 1947. Pp. 283. 21s. net.

RADOSLAV A. TSANOFF. *Ethics.* New York and London: Harper and Brothers. 1947. Pp. xiv + 385. 3 dollars 50 cents.

D. DAICHES RAPHAEL. *The Moral Sense.* (Oxford Classical and Philosophical Monographs). London: Geoffrey Cumberlege, Oxford University Press. 1947. Pp. 201. 12s. 6d. net.

W. F. R. HARDIE. *Naturalistic Ethics.* Annual Philosophical Lecture, Henriette Hertz Trust, British Academy, 1947. London: Geoffrey Cumberlege. From the Proceedings of the British Academy. Vol. XXXIII. 31 pp. 4s. net.

RUDOLF CARNAP. *Meaning and Necessity.* A Study in Semantics and Modal Logic. Chicago, Ill.: University of Chicago Press. Great Britain and Ireland: Cambridge University Press. 1947. Pp. viii + 210. English price 27s. 6d. net.

BERTRAND RUSSELL. *Philosophy and Politics* (The Fourth Annual Lecture of the National Book League). Published for the National Book League by Cambridge University Press. 1947. Pp. 30. 2s. 6d. net.

ARTHUR LITTLE, S.J. *The Nature of Art or The Shield of Pallas.* London, New York, Toronto: Longmans, Green & Co. Pp. x + 264. 8s. 6d. net.

JOHN OULTON WISDOM. *The Metamorphosis of Philosophy.* Cairo: Al-Maaref Press. 1947. Pp. vii + 224. No price quoted.

GEDDES MACGREGOR. *Aesthetic Experience in Religion.* London: Macmillan & Co., Ltd. 1947. Pp. 264. 15s. net.

A. J. ARBERRY, Litt.D. *Pages from the Kitab Al-Luma' of Abu Nasr Al-Sarraj.* London: Luzac & Co., Ltd. 1947. Pp. 29 + 16. 6s. 6d.

H. AND H. A. FRANKFORT, JOHN A. WILSON, THORKILD JACOBSEN, WILLIAM A. IRWIN. *The Intellectual Adventure of Ancient Man.* Chicago, Ill.: University of Chicago Press. Great Britain and Ireland: Cambridge University Press. 1947. Pp. 401. English price 22s. 6d. net.

JEAN-PAUL SARTRE. *Existentialism.* Translated by Bernard Frechtman. New York: Philosophical Library. 1947. Pp. 92. 2 dollars 75 cents.

JOHN OULTON WISDOM. *Causation and the Foundations of Science.* Paris: Hermann et Cie, Editeurs. 1946. Pp. 54. No price quoted.

LECOMTE DU NOUY. *Human Destiny.* New York, London, Toronto: Longmans, Green & Co. 1947. Pp. xxii + 289. 17s. 6d. net.

PROCEEDINGS OF THE AMERICAN CATHOLIC PHILOSOPHICAL ASSOCIATION. Vol. XXI. *The Philosophy of Being.* Washington, D.C.: The Catholic University of America. 1947. Pp. 207. 2 dollars.

MAX BLACK. *Critical Thinking.* An Introduction to Logic and Scientific Method. New York: Prentice-Hall, Inc. 1946. Pp. xv + 402. No price quoted.

THEODORE VAN SCHELVEN. *An Introduction to Definitive Philosophy and Basic Psychology.* Amsterdam: Kosmos Publishing Company. 1947. Pp. 112. No price quoted.

E. F. CARRITT. *Ethical and Political Thinking.* Oxford: Clarendon Press. 1947. Pp. xx + 186. 10s. net.

AGOSTINO GEMELLI and GIORGIO ZUNINI. *Introduzione alla Psicologia* Milan: Società Editrice "Vita e Pensiero." 1947. Pp. xvi + 448. No price quoted. (Pubblicazioni dell'Universita Cattolica del Sacro Cuore. Nova Serie, Volume XX.)

MORRIS GINSBERG. *Reason and Unreason in Society.* Essays in Sociology and Social Philosophy. London: for The London School of Economics and Political Science (University of London), Longmans, Green & Co. 1947. Pp. vii + 327. 15s. net.

R. G. SMITH (Editor). *Scottish Periodical.* Vol. I, No. 1. London and Edinburgh: Oliver & Boyd. Pp. 120. 5s. net.

DONALD WILLIAMS. *The Ground of Induction.* Cambridge, Mass: Harvard University Press. 1947. Pp. vii + 213. 3 dollars.

MAX HORKHEIMER. *Eclipse of Reason.* New York: Oxford University Press. 1947. Pp. vii + 187. English price 16s. net.

ALLEN WIKGREN, in collaboration with ERNEST CADMAN COLWELL, RALPH MARCUS. *Hellenistic Greek Texts.* Chicago, Illinois: University of Chicago Press. Great Britain and Ireland: Cambridge University Press. 1947. Pp. xxvi + 275. English price 20s. net.

W. E. HOCKING, BRAND BLANSHARD, C. W. HENDEL, J. H. RANDALL, JR. *Preface to Philosophy: Textbook.* New York: The Macmillan Company. London: Macmillan & Co. Ltd. 1947. Pp. x + 508. English price 12s. 6d. net.

GERSHOM G. SCHOLEM. *Major Trends in Jewish Mysticism.* New York: Schocken Books Inc. 1947. Pp. xv + 454. 5 dollars 50 cents.

A. C. EWING. *The Individual, the State, and World Government.* New York: The Macmillan Company. London: Macmillan & Co. Ltd. 1947. Pp. viii + 322. English price 20s. net.

BARKER FAIRLEY. *A Study of Goethe.* Oxford University Press. 1947. Pp. viii + 280. 15s. net.

ERANOS JAHRBUCH, 1946 (Band XIV). *Geist und Natur.* Zurich: Rhein-Verlag. 1947. Pp. 570. 27.50 Swiss francs.

ANTON FISCHER. *Die philosophischen Grundlagen der wissenschaftlichen Erkenntnis.* Wien: Springer-Verlag. 1947. Pp. vi + 240. 4 dollars 20 cents.

CORRESPONDENCE

Xth INTERNATIONAL CONGRESS OF PHILOSOPHY

The Ninth International Congress of Philosophy (Congrès-Descartes), which took place in Paris in August 1937, accepted at its final session the Dutch Government's invitation to meet again in the Netherlands. The Tenth Congress would have met in Groningen, in September 1941, had not the war prevented this. In February 1940 an indefinite delay of the Congress was agreed upon. Only some months later the Netherlands were overpowered. Shortly after Professor Leonard Polak was arrested; he died in the concentration camp of Sachsenhausen, a victim of an inhuman ideology.

The committee which had constituted itself under Polak's chairmanship agreed to resume their task as soon as circumstances would permit and have decided, in agreement with the board of the preceding congress and the "Institut international de philosophie," to summon the Congress to Amsterdam during the summer of 1948 to meet at a date yet to be arranged between August 15th and September 15th.

We now address to the students of philosophy in all countries, which during the last years have served the cause of mankind, a first call. We feel that the Congress will, at this very moment, meet the sympathy and the active support of all those who endorse the idea of humanity and who prefer universal values over particular interests.

The material difficulties, which, at this moment, hamper international relations and traffic, presumably will gradually diminish; in 1948 it will be possible to travel to the Netherlands without too much trouble. The assistance promised in this respect by the section Literature and Philosophy of the UNESCO has been gratefully accepted.

The Congress will reflect as far as possible the philosophical activities during the years since 1937. The board are fully aware of the present situation in philosophy, which is characterized by a predominance of diversity over unity. They accept the diversity without indulging in any illusions of bringing about a unification.

They consider a meeting of representatives of divergent currents of thought as highly profitable, provided it is inspired by a desire for objectivity and mutual respect. On the other hand they are anxious to prevent the Congress from becoming merely a fortuitous encounter of these tendencies where, in spite of all objectivity, the impression of a total lack of unity would prevail. In order to meet this danger the choice of a central theme, imposed by the inner development of philosophy as well as the present state of mankind, seemed justified. This theme is given by the ideas of *man, humanity, and mankind*, which are so closely interconnected, that their philosophical clarification cannot be performed without constant mutual consultation.

This central theme borrows its significance from the facts that it points to the common origin, from which the divergent currents of thought may be considered; it indicates a common problem, to which they all refer. In dealing with this theme, we certainly cannot do without the contributions of sciences such as sociology, psychology, psychiatrics, ethnology, and the history of civilization.

The other domains of philosophy will, of course, be present at the Congress besides its central theme; the theory of knowledge, the theory of values, the problems of metaphysics will not be lacking. Wherever possible they will be brought in connection with the central theme, without prejudice to the autonomous treatment of their special problems. For the plenary meetings papers will be invited on the central theme as well as on the other great problems.

Provisional subscriptions for the Congress and announcements of short papers to be read in the sections will be very welcome to the secretariate. Especially any suggestions regarding the fundamental idea and its practical elaboration will be gratefully accepted.

Further communications will follow, in order to keep future participants informed on the state of our preparations.

Name and address of the secretary: E. W. Beth, Bern. Zweerskade 23 I, Amsterdam-Z.

(On the receipt of the above letter, representatives of the Mind Association, The Aristotelian Society, and The British Institute of Philosophy, met to consider

how British Philosophy could make a contribution to the Xth International Congress of Philosophy.

Dr. A. C. Ewing, of 69, Hurst Park Avenue, Cambridge, was appointed to represent all three of the above Societies, and he has sent a letter to a selection of British philosophers, informing them of the proposed Congress and inviting them (1) to communicate with him if they intend to be present at the Congress, and (2) to submit their papers to the Secretary of the Organizing Committee, Professor E. W. Beth, Bern. Zweerskade 23 I, Amsterdam-Z.).—Ed.

To the Editor of *Philosophy*

Dear Sir,

Readers of *Philosophy* may be interested to learn that in June of this year the first award was made of the Susan Stebbing Studentship. The successful candidate is Mademoiselle Francoise Chauvet, a French lady who has the Licence ès Lettres of the University of Lyon and hopes to proceed to her Agrégation. She is studying the origins of modern philosophy with special reference to Bacon and Descartes, and will hold the Studentship at Bedford College.

Yours faithfully,

H. B. Acton.

Bedford College for Women
(University of London),
Regent's Park, N.W.1.

INSTITUTE NOTES

Members will have received information concerning the lectures and evening meetings for the session 1947–48.

The 22nd Annual General Meeting of the Institute was held at University Hall, 14, Gordon Square, London, W.C.1, on Thursday, October 2, 1947, at 5 p.m. This was immediately followed by an Extraordinary General Meeting at which it was resolved that the name of the Institute be changed to "The Royal Institute of Philosophy."

OBJECTS OF THE INSTITUTE

The Royal Institute of Philosophy exists to bring leading exponents of various branches of Philosophy into direct contact with the general public, with the purpose of satisfying a need felt by many men and women in every walk of life for greater clearness and comprehensiveness of vision in human affairs.

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(4) Gives guidance and assistance to individuals in their philosophical reading.

(5) Encourages research in Philosophy.

There are Local Centres of the Institute at Bangor, Cardiff, Liverpool, Manchester, Newcastle, Durham, and Sheffield.

Further information and forms of application for membership may be had on application to the Director of Studies at University Hall, 14 Gordon Square, London, W.C.1.

[*Suggested*]

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THE JOURNAL OF THE BRITISH INSTITUTE
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